

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE NO. VII
CEBU SECOND DISTRICT ENGINEERING OFFICE
POBLACION, DALAGUETE, CEBU

C.Y. 2025 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR
CONVERGENCE AND SPECIAL SUPPORT PROGRAM
BASIC INFRASTRUCTURE PROGRAM (BIP),
MULTI-PURPOSE BUILDINGS/FACILITIES TO SUPPORT SOCIAL SERVICES
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING
BARANGAY CATANG, ARGAO, CEBU
ARGAO, CEBU

SUBMITTED BY:

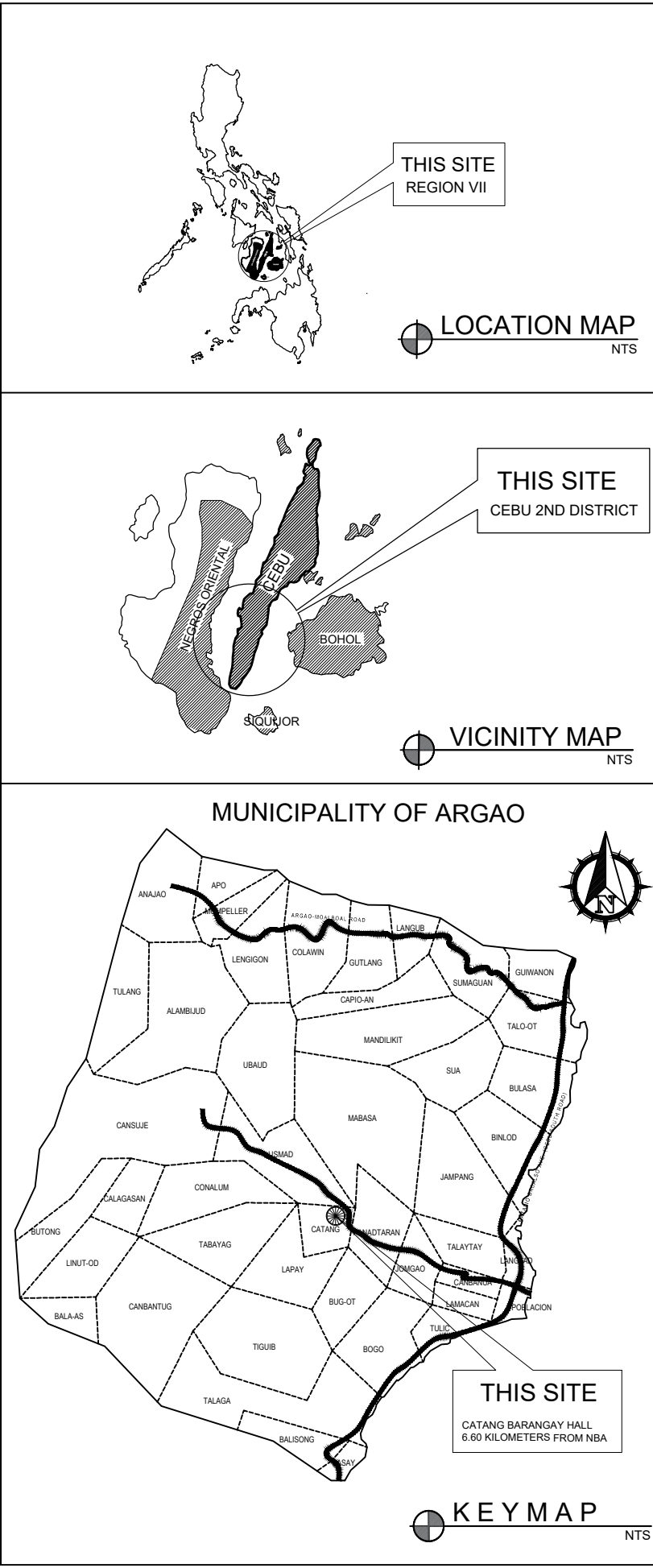
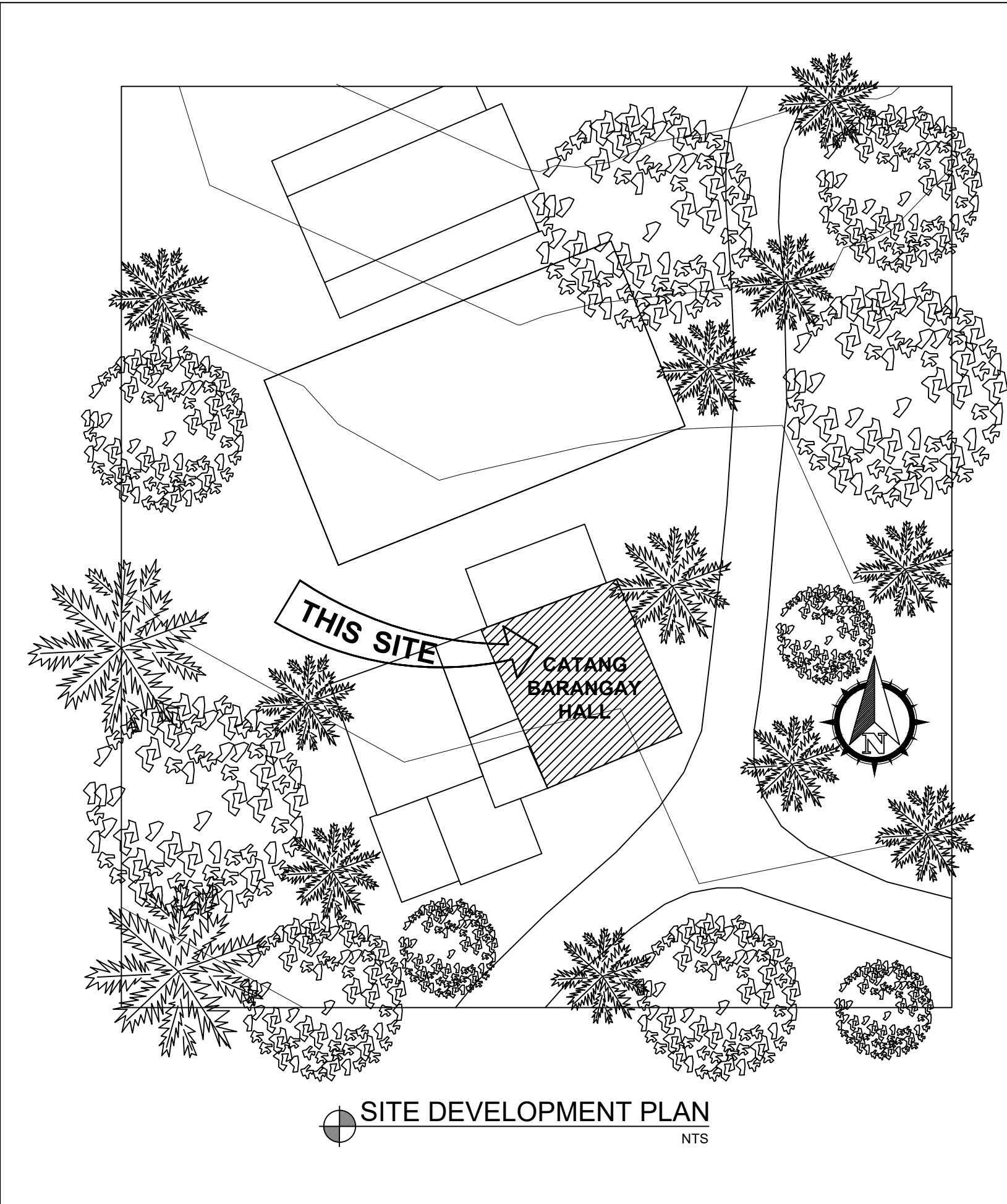
LENARD A. PANUGALINOG
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDING APPROVAL:

RYAN M. SAULI
OIC - ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:

BRILLIANCE M. SALAS
OIC - DISTRICT ENGINEER
DATE:



REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS & HIGHWAYS OFFICE OF THE BUILDING OFFICIAL	
RECOMMENDING APPROVAL:	
HEAD ARCHITECTURAL SECTION	DATE
APPROVED:	
BUILDING OFFICIAL	DATE
RECOMMENDING APPROVAL:	
LAND USE & ZONING	
HEAD	DATE:
RECOMMENDING APPROVAL:	
LINE & GRADE	
HEAD	DATE:
RECOMMENDING APPROVAL:	
ARCHITECTURAL	
HEAD	DATE:
RECOMMENDING APPROVAL:	
STRUCTURAL	
HEAD	DATE:
RECOMMENDING APPROVAL:	
SANITARY	
HEAD	DATE:
RECOMMENDING APPROVAL:	
ELECTRICAL	
HEAD	DATE:
RECOMMENDING APPROVAL:	
MECHANICAL	
HEAD	DATE:

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SHEET CONTENTS:
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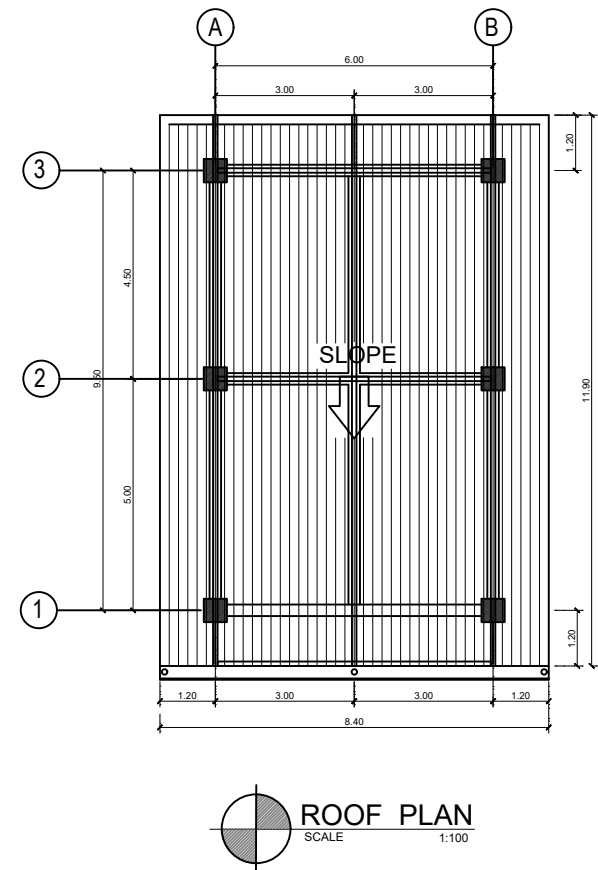
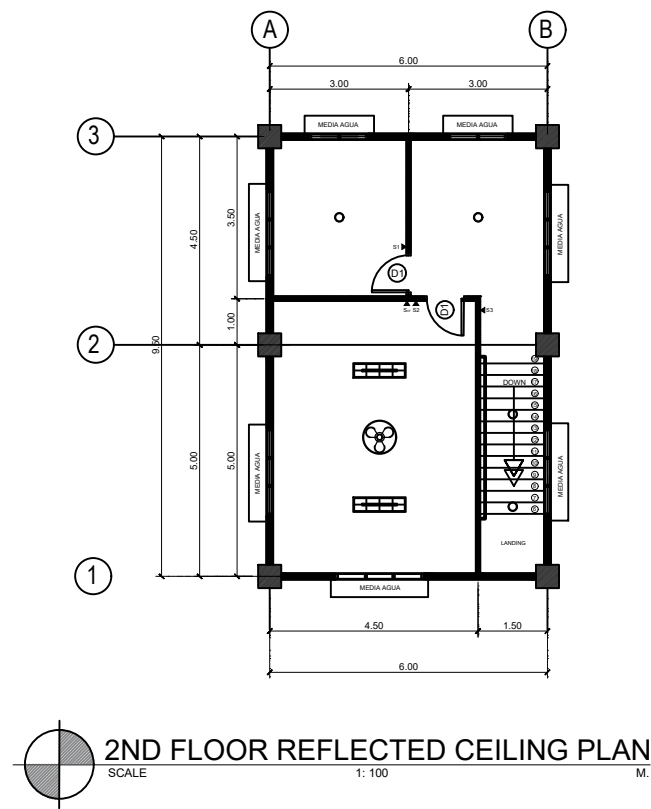
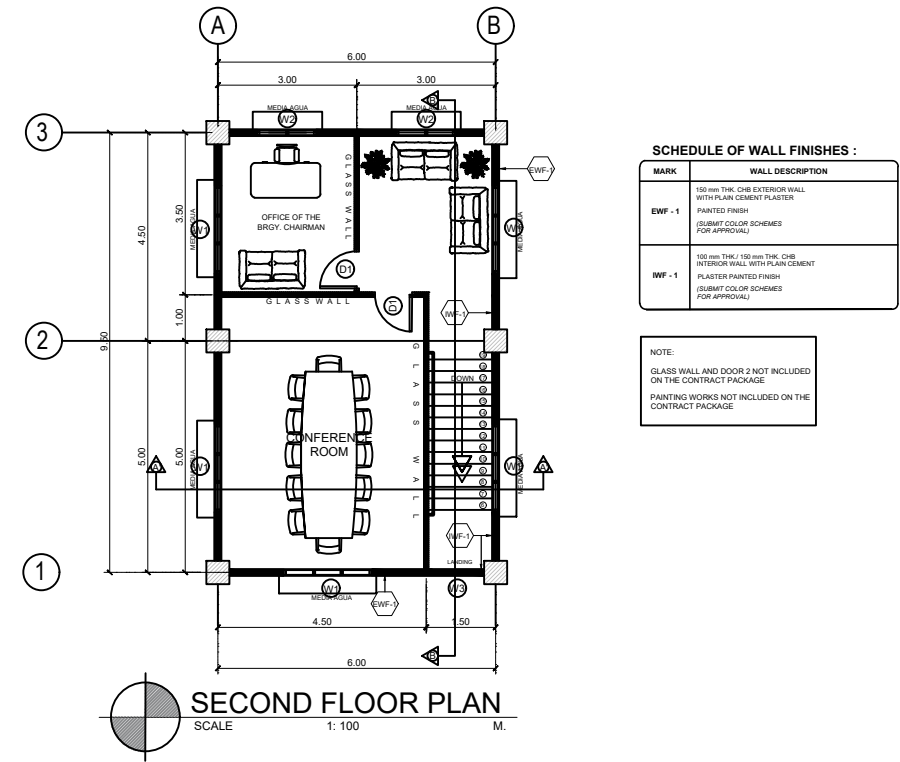
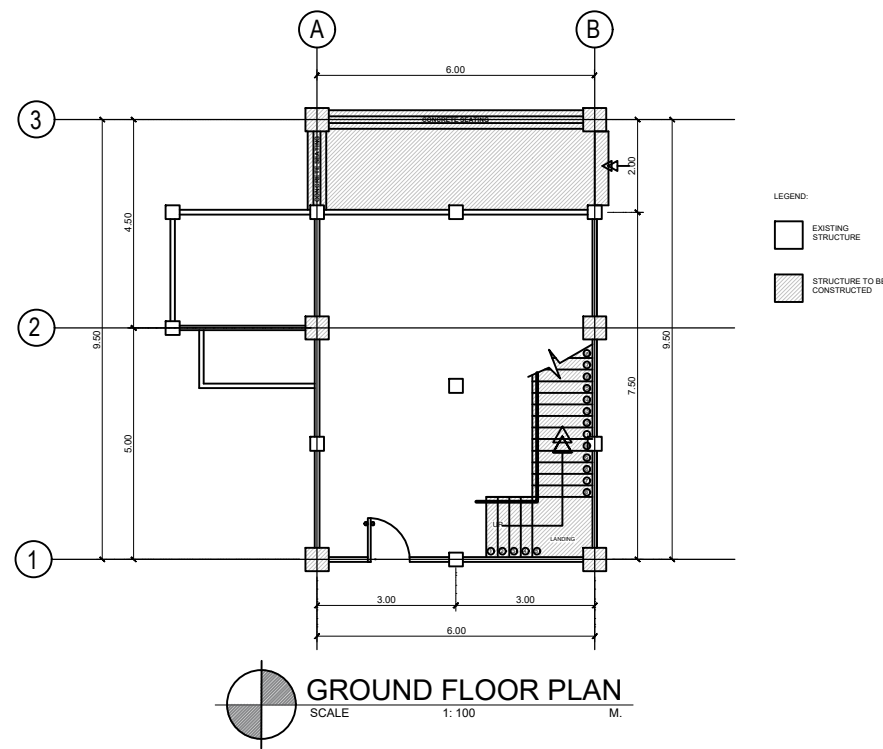
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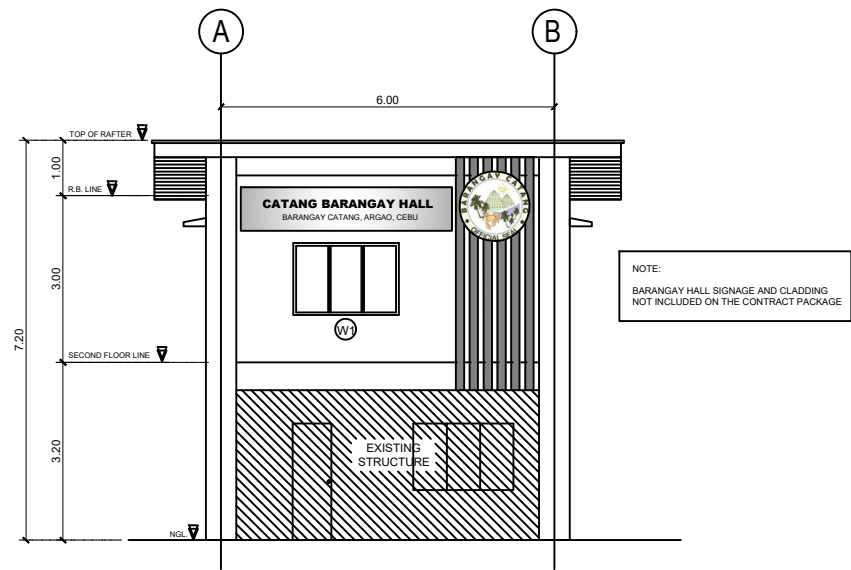
SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
B.3(1)	PERMITS AND CLEARANCES	1.00	L.S.
B.5(1)	PROJECT BILLBOARD / SIGNBOARD	2.00	EACH
B.7(1)	OCCUPATIONAL SAFETY AND HEALTH	1.00	L.S.
B.9(1)	MOBILIZATION / DEMOBILIZATION	1.00	L.S.
801(1)	REMOVAL OF STRUCTURES AND OBSTRUCTION	1.00	L.S.
803(1)a	STRUCTURE EXCAVATION (COMMON SOIL)	48.38	CU.M.
804(1)a	EMBANKMENT FROM ROADWAY / STRUCTURE EXCAVATION (COMMON SOIL)	33.75	CU.M.
804(7)	GRAVEL FILL	1.35	CU.M.
900(1)c	STRUCTURAL CONCRETE, 3000 PSI, CLASS A, 28 DAYS	49.17	CU.M.
902(1)a1	REINFORCING STEEL (DEFORMED), GRADE 40	10,873.81	KG.
903(2)	FORMWORKS AND FALSEWORKS	277.20	SQ.M.
1000(1)	SOIL POISONING	3.00	LITERS
1046(1)a2	CHB LOAD BEARING (INCLUDING REINFORCING STEEL) 150MM	8.00	SQ.M.
1046(2)a2	CHB NON LOAD BEARING (INCLUDING REINFORCING STEEL) 150MM	94.10	SQ.M.
1008(2)	ALUMINUM GLASS WINDOWS	13.68	SQ.M.
1003(1)a1	CEILING (4.5MM, METAL FRAME, FIBER CEMENT BOARD)	89.58	SQ.M.
1027(1)	CEMENT PLASTER FINISH	204.20	SQ.M.
1032(1)a	PAINTING WORKS (MASONRY / CONCRETE)	181.08	SQ.M.
1032(1)c	PAINTING WORKS (STEEL)	194.00	SQ.M.
1013(2)c	FABRICATED METAL ROOFING ACCESSORY, GAUGE 24 (0.701MM), GUTTERS	8.40	L.M.
1014(1)a2	PRE-PAINTED METAL SHEETS, ABOVE 0.427MM, CORRUGATED, LONG SPAN	100.30	SQ.M.
1013(3)	FABRICATED METAL ROOFING ACCESSORY, GAUGE 26 (0.551 MM), PLAIN G.I. SHEET	6.00	SHEETS
1047(7)	STRUCTURAL STEEL	1.00	L.S.
1047(8)b	STRUCTURAL STEEL (PURLINS)	489.60	KG.
1047(4)b	METAL STRUCTURE ACCESSORIES (TURNBUCKLE)	8.00	EACH
1047(5)c	METAL STRUCTURE ACCESSORIES (CROSSBRACING)	43.20	KG.
1047(5)d	METAL STRUCTURE ACCESSORIES (STEEL PLATES)	203.46	KG.
1047(5)a	METAL STRUCTURE ACCESSORIES (BOLTS AND RODS)	34.08	KG.
1047(5)b	METAL STRUCTURE ACCESSORIES (SAGRODS)	29.76	KG.
1100(10)	CONDUITS, BOXES & FITTINGS (CONDUIT WORKS / CONDUIT ROUGH-IN)	1.00	L.S.

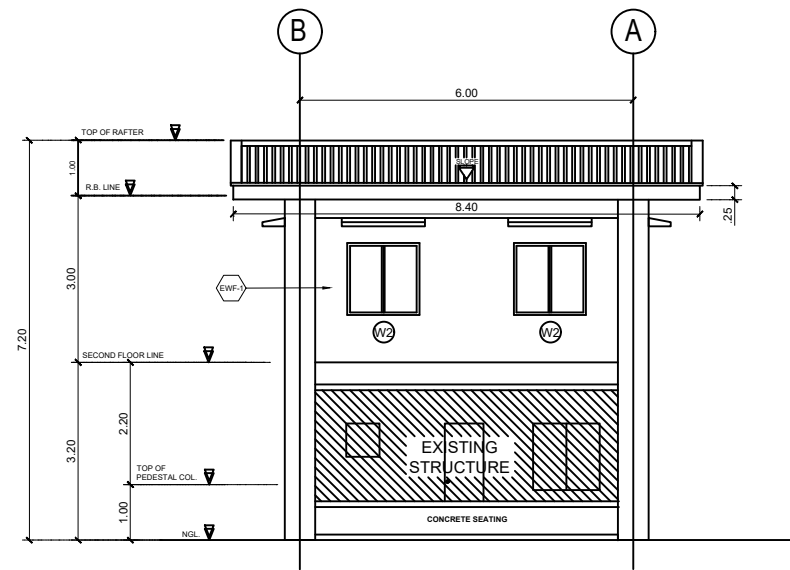
 <p> REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE VII CEBU SECOND DISTRICT ENGINEERING OFFICE POBLACION, DALAGUETE, CEBU PLANNING & DESIGN SECTION </p>	PROJECT TITLE / LOCATION:	SHEET CONTENTS:	DRAFTED:	CHECKED:	SUBMITTED:	APPROVAL RECOMMENDED:	APPROVED:	SET NO:	SHEET NO:
	CY 2025 PROJECT DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM BASIC INFRASTRUCTURE PROGRAM (BIP) MULTI-PURPOSE BUILDINGS / FACILITIES TO SUPPORT SOCIAL SERVICES CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING BARANGAY CATANG, ARGAO, CEBU	SUMMARY OF QUANTITIES	LEONIL N. BAJENTING ENGINEERING ASSISTANT	JESS VLADIMIR L. HINOGUIN ENGINEER II	LENARD A. PANUGALINOG CHIEF, PLANNING & DESIGN SECTION	RYAN M. SAULI OIC - ASSISTANT DISTRICT ENGINEER	BRILLIANCE M. SALAS OIC-DISTRICT ENGINEER	SOQ 01/01	03 16
			PREPARED:						
			BEETHOVEN XAVIER B. EGOS ARCHITECT II						
				DATE:	DATE:	DATE:	DATE:		



 <p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE VII CEBU SECOND DISTRICT ENGINEERING OFFICE POBLACION, DALAGUETE, CEBU PLANNING & DESIGN SECTION</p>	PROJECT TITLE / LOCATION: CY 2025 PROJECT DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM BASIC INFRASTRUCTURE PROGRAM (BIP) MULTI-PURPOSE BUILDINGS / FACILITIES TO SUPPORT SOCIAL SERVICES CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING BARANGAY CATANG, ARGAO, CEBU	SHEET CONTENTS: GROUND FLOOR PLAN SECOND FLOOR PLAN 2ND FLOOR REFLECTED CEILING PLAN ROOF PLAN	DRAFTED: LEONIL N. BAJENTING ENGINEERING ASSISTANT PREPARED: BEETHOVEN XAVIER B. EGOS ARCHITECT II	CHECKED:	SUBMITTED:	APPROVAL RECOMMENDED:	APPROVED:	SET NO:	SHEET NO:
				JESS VLADIMIR L. HINOGUIN	LENARD A. PANUGALINOG	RYAN M. SAULI	BRILLIANCE M. SALAS	<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> A 03/05 </div>	<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> 06 16 </div>
				ENGINEER II	CHIEF, PLANNING & DESIGN SECTION	OIC - ASSISTANT DISTRICT ENGINEER	OIC-DISTRICT ENGINEER		
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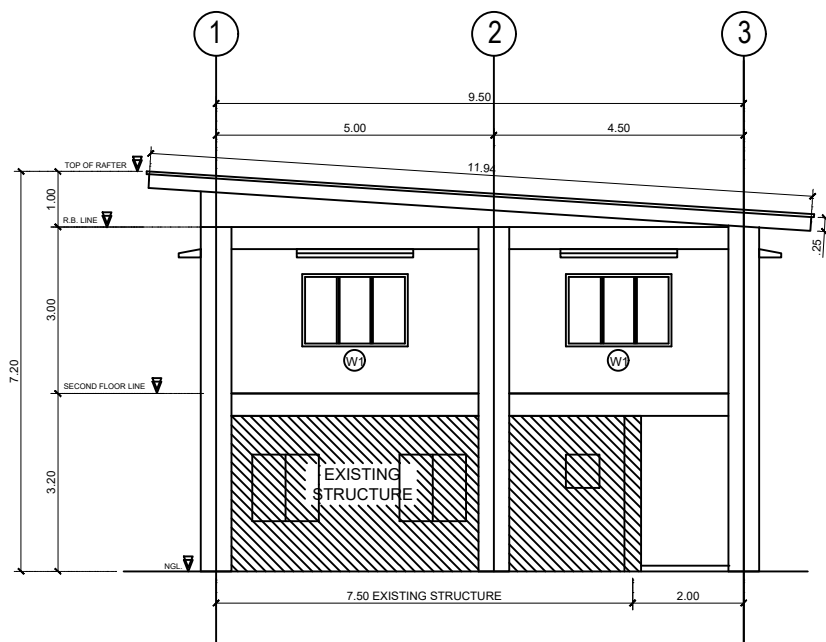
FRONT ELEVATION
SCALE 1: 80 M.



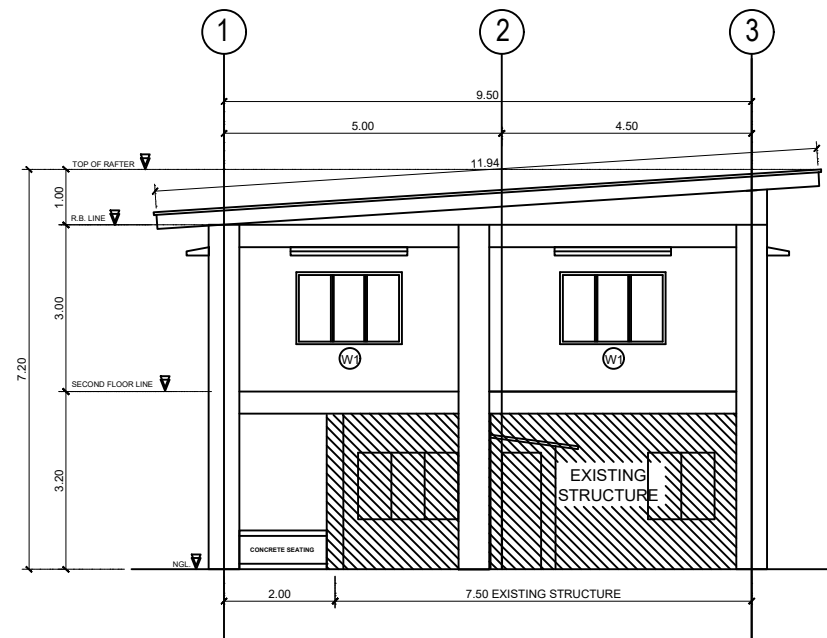
REAR ELEVATION
SCALE 1: 80 M.

SCHEDULE OF WALL FINISHES :	
MARK	WALL DESCRIPTION
EW - 1	150 mm THK. CHB EXTERIOR WALL WITH PLAIN CEMENT PLASTER PAINTED FINISH (SUBMIT COLOR SCHEMES FOR APPROVAL)
IWF - 1	100 mm THK./ 150 mm THK. CHB INTERIOR WALL WITH PLAIN CEMENT PLASTER PAINTED FINISH (SUBMIT COLOR SCHEMES FOR APPROVAL)

NOTE:
PAINTING WORKS NOT INCLUDED ON THE CONTRACT PACKAGE



RIGHTSIDE ELEVATION
SCALE 1: 80 M.



LEFTSIDE ELEVATION
SCALE 1: 80 M.



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FRONT ELEVATION
REAR ELEVATION
RIGHTSIDE ELEVATION
LEFTSIDE ELEVATION

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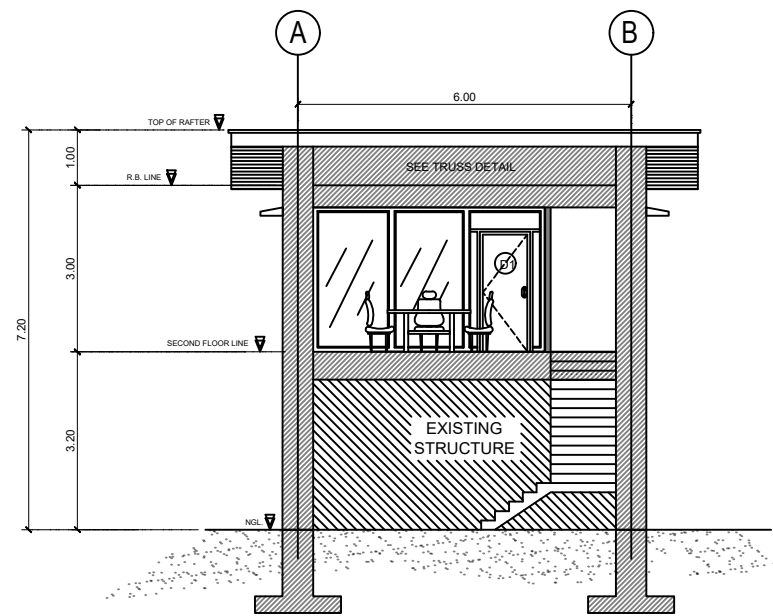
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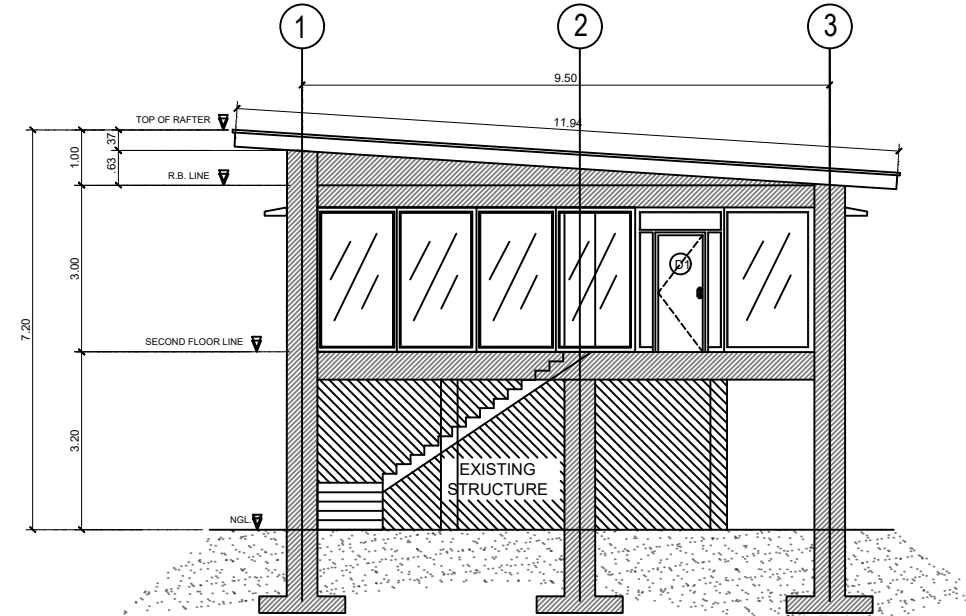
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BRILLIANCE M. SALAS
OIC-DISTRICT ENGINEER
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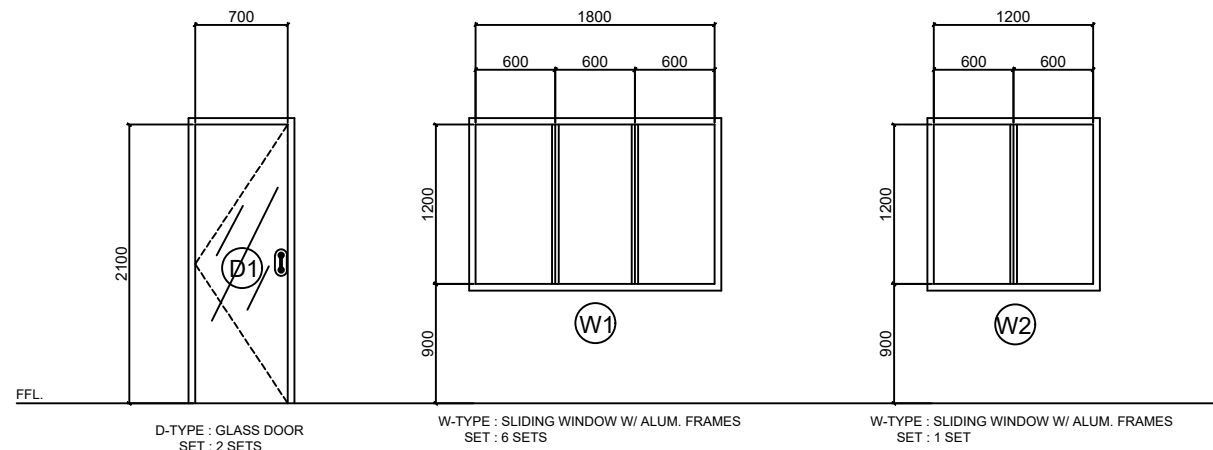


CROSS SECTION (THRU A'-A')
SCALE 1: 80 M.



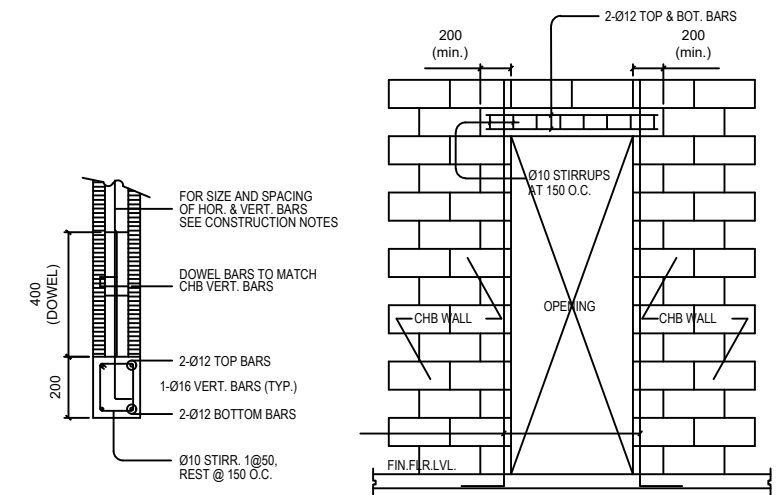
LONGITUDINAL SECTION (THRU B'-B')
SCALE 1: 80 M.

NOTE:
GLASS WALL AND DOOR 2
NOT INCLUDED ON THE
CONTRACT PACKAGE




NOTE:
DOOR 2 NOT INCLUDED ON
THE CONTRACT PACKAGE

SCHEDULE OF DOORS AND WINDOWS
SCALE NTS



SECTION
ELEVATION
TYPICAL DETAIL OF LINTEL BEAM AT CHB WALL OPENING

 <p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE VII CEBU SECOND DISTRICT ENGINEERING OFFICE POBLACION, DALAGUETE, CEBU PLANNING & DESIGN SECTION</p>	<p>PROJECT TITLE / LOCATION:</p> <p>CY 2025 PROJECT DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM BASIC INFRASTRUCTURE PROGRAM (BIP) MULTI-PURPOSE BUILDINGS / FACILITIES TO SUPPORT SOCIAL SERVICES CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING BARANGAY CATANG, ARGAO, CEBU</p>	<p>SHEET CONTENTS:</p> <p>CROSS SECTION LONGITUDINAL SECTION SCHEDULE OF DOORS AND WINDOWS TYPICAL DETAIL OF LINTEL BEAM AT CHB WALL OPENING</p>	<p>DRAFTED:</p> <p>LEONIL N. BAJENTING ENGINEERING ASSISTANT</p> <p>PREPARED:</p> <p>BEETHOVEN XAVIER B. EGOS ARCHITECT II</p>	CHECKED:	SUBMITTED:	APPROVAL RECOMMENDED:	APPROVED:	SET NO:	SHEET NO:
				JESS VLADIMIR L. HINOGUIN	LENARD A. PANUGALINOG	RYAN M. SAULI	BRILLIANCE M. SALAS	A	08
				ENGINEER II	CHIEF, PLANNING & DESIGN SECTION	OIC - ASSISTANT DISTRICT ENGINEER	OIC-DISTRICT ENGINEER	05/05	16
				DATE:	DATE:	DATE:	DATE:		

GENERAL CONSTRUCTION NOTES

GENERAL NOTES

1.0 STANDARDS AND REFERENCES

- THE FOLLOWING SHALL GOVERN THE DESIGN FABRICATION AND CONSTRUCTION OF THE PROJECT.
- 1.1 NATIONAL STRUCTURAL CODE OF THE PHILIPPINES (N.S.C.P 2015) VOL. 1, SEVENTH EDITION.

2.0 DESIGN CRITERIA

2.1 LOADINGS

A. DEAD LOAD

CONCRETE	23.56 kN/m ³
STEEL	76.93 kN/m ³
150 mm THK. CHB WALL	2.73 kPa
100 mm THK. CHB WALL	2.11 kPa

B. LIVE LOAD

ROOF	1.00 kPa
CLASSROOMS	1.90 kPa
TOILETS	1.90 kPa
CORRIDORS ABOVE, STAIRS	3.80 kPa
CORRIDORS ON GROUND	4.80 kPa

C. WIND LOAD

BUILDING CATEGORY = 1 (ESSENTIAL FACILITIES)

	OPTION 1	OPTION 2
EXPOSURE CAT.	D (FLAT UNOBSTRUCTED AREAS AND/OR NEAR BODIES OF WATER)	B (URBAN OR SUBURBAN AREAS WITH NUMEROUS CLOSELY SPACED OBSTRUCTIONS)
WIND VELOCITY	V=270 KPH	V=340 KPH

$$P = qh [(GCpf) - (GCpi)] \quad (\text{DESIGN WIND PRESSURE})$$

WHERE: qh = VELOCITY PRESSURE (kPa)
 $GCpf$ = EXTERNAL PRESSURE COEFFICIENT
 $GCpi$ = INTERNAL PRESSURE COEFFICIENT

D. SEISMIC LOAD

$$V = \frac{C_v}{R} W$$

(DESIGN BASE SHEAR)

$$V_{max} = \frac{2.50 C_a I}{R} W \quad V_{min} = 0.11 C_a W$$
$$V_{min} = \frac{0.80 Z N_a}{R} W \quad (\text{ZONE 4})$$

WHERE: W = TOTAL DEAD LOAD

T = NATURAL PERIOD = $C_t (h)$

WHERE: C = NUMERICAL COEFFICIENT

h = BUILDING HEIGHT

I = IMPORTANCE FACTOR = 1.50

R = NUMERICAL FACTOR = 8.50

SEISMIC COEFFICIENT $C_v = 0.7347 N_v$

$C_a = 0.44 N_v$

NEAR SOURCE FACTOR (6.3 km) $N_v = 1.15$

$N_a = 1$

Z = SEISMIC ZONE = 0.40 (ZONE 4)

S = SOIL TYPE = D

2.2 DESIGN STRESSES

A. CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS:

- a. FOOTINGS, COLUMNS, BEAMS AND SLABS
b. SLAB ON FILL
c. SLAB

$f'_c = 27.6 \text{ MPa}$ (4,000 psi)
 $f'_c = 17.5 \text{ MPa}$ (3,000 psi)
 $f'_c = 27.6 \text{ MPa}$ (4,000 psi)

B. REINFORCING STEEL BARS

- a. FOR BARS 16mm AND GREATER (INTERMEDIATE GRADE DEFORMED BAR) $f_y = 414 \text{ MPa}$ (60,000 psi)
b. FOR BARS LESS THAN 16mm (STRUCTURAL GRADE DEFORMED BAR) $f_y = 275 \text{ MPa}$ (40,000 psi)

C. STRUCTURAL STEEL ASTM-A36

FOR TRUSSES, BRACINGS, & STRUTS $f_y = 248 \text{ MPa}$ (36,000 psi)

D. PURLINS

COLD FORMED LIGHT $f_y = 248 \text{ MPa}$ (36,000 psi)

E. MASONRY UNIT (CHB)

NON - LOADING BEARING CHB WALLS $f_m' = 3.45 \text{ MPa}$ (500 psi)

F. WELDS

E - 60XX ELECTRODE $f_y = 414 \text{ MPa}$ (60,000 psi)

G. STRUCTURAL BOLTS ASTM- A307

a. $F_t = 96.60 \text{ mPa}$ (14, 000 psi)
b. $F_y = 69.00 \text{ mPa}$ (10, 000 psi)

- 3.0 IN THE INTERPRETATION OF THE DRAWING, INDICATED DIMENSIONS SHALL GOVERN. DISTANCES AND SIZES SHALL NOT BE SCALED FOR CONSTRUCTIONS PURPOSES
- 4.0 IN REFERENCES TO OTHER DRAWINGS, SEE ARCHITECTURAL DRAWINGS FOR DEPRESSIONS IN FLOOR SLABS, OPENINGS IN THE WALLS AND SLABS, INTERIOR PARTITIONS, LOCATIONS OF DRAINS ETC.
- 5.0 IN CASE OF DISCREPANCIES AS TO THE LAYOUT, DIMENSIONS AND ELEVATIONS BETWEEN THE STRUCTURAL PLANS AND ARCHITECTURAL DRAWINGS, THE CONTRACTORS SHALL NOTIFY BOTH THE
- 6.0 ALL CONCRETE WORKS AND CONCRETE REINFORCEMENTS SHALL BE DONE IN ACCORDANCE WITH THE ACI.318-14M BUILDING CODE REQUIREMENT AND ALL STRUCTURAL STEEL WORKS ACCORDING WITH THE WITH THE AISC-05 IN SO FAR AS THEY DO NOT CONFLICT WITH THE LOCAL BUILDING CODE REQUIREMENT.
- 7.0 ACI REFERS TO AMERICAN CONCRETE INSTITUTE, AISC REFERS TO AMERICAN INSTITUTE OF STEEL CONSTRUCTION AND ASTM REFERS TO AMERICAN SOCIETY FOR TESTING MATERIALS.
- 8.0 CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
- 9.0 SHOP DRAWING WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEELS, MISCELLANEOUS IRON, PRE-CAST CONCRETE, ETC. SHALL BE SUBMITTED FOR ENGINEERS APPROVAL BEFORE FABRICATION.
10. CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEOUS CURBS, SILLS, STOOLS EQUIPMENT AND MECHANICAL BASES THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS.
11. ALL RESULTS OF THE MATERIAL TESTING FOR CONCRETE, REINFORCING BARS & STRUCTURAL STEEL MUST BE NOTED & APPROVED BY THE MATERIALS ENGINEER/STRUCTURAL DESIGNER.

NOTES ON CONCRETE MIXES & PLACING

1. ALL CONCRETE SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH AT THE END OF TWENTY EIGHT (28) DAYS W/ CORRESPONDING MAXIMUM SIZE AGGREGATE & SLUMP AS FOLLOWS.

LOCATION	28 DAYS STRENGTH	MAX. SIZE OF AGGREGATE	MAX SLUMP
ALL OTHERS, INCLUDING SUSPENDED SLABS	4000 PSI (27.6 MPa)	20 mm	100mm
COLUMNS	4000 PSI (27.6 MPa)	20 mm	100mm
BEAMS	4000 PSI (27.6 MPa)	20 mm	100mm
SLAB ON FILL	3000 PSI (17.5 MPa)	20 mm	100mm

2. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS.

SUSPENDED SLABS	20mm
SLAB ON GRADE	40mm
WALLS ABOVE THE GRADE	25mm
BEAM STIRRUPS AND COLUMN TIES	40mm
WHERE CONCRETE IS EXPOSED TO EARTH BUT POURED AGAINST FORMS	50mm
WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH	75mm

3. CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSISITON WITHOUT SEGREGATION. RE-HANDLING OR PLACING SHALL BE DONE PREFERABLY WITH BUGGIES, BUCKETS OR WHEELBARROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUIGGIES, WHEELBARROWS OR BUCKETS IN WHICH CASE THEY SHALL NOT EXCEED SIX (6) METERS IN AGGREGATE LENGTH.

4. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATORS UNLESS AUTHORIZED IN WRITING DESIGNER AND ONLY FOR UNUSUAL CONDITIONS WHERE VIBRATIONS ARE EXTREMELY DIFFICULT TO ACCOMPLISH.

5. ALL ANCHOR BOLTS, DOWELS, AND OTHER INSERTS SHALL BE PROPERLY POSITIONED & SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.

6. ALL CONCRETE SHALL BE KEPT MOST FOR A MINIMUM OF SEVEN CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE O WET BURLAP, FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.

7. STRIPPING OF FORMS AND SHORES:

FOUNDATION	24 HOURS
SUSPENDED SLAB EXCEPT WHEN ADDITIONAL LOADS ARE IMPOSED	8 DAYS
WALLS	21 DAYS
BEAMS	14 DAYS
COLUMNS	21 DAYS

8. THE CONTRACTOR SHALL SUBMIT THE SCHEDULE OF POURING AND THE LOCATION OF THE CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER AT LEAST (4) DAYS PRIOR TO THE POURING FOR APPROVAL.

9. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE FORMS AND SHORINGS UNTIL THE CONCRETE MEMBERS HAVE ATTAINED THEIR WORKING CONDITION AND STRENGTH.

NOTES ON FOOTINGS

1. FOOTINGS ARE DESIGNED FOR AN ALLOWANCE SOIL BEARING PRESSURE OF 157.3 KPa (3,285psf). CONTRACTOR SHALL REPORT TO THE ENGINEER, IN WRITING, THE ACTUAL SOIL CONDITIONS UNCOVERED AND CONFIRM ACTUAL BEARING CAPACITY OF SOIL BEFORE DEPOSITING CONCRETE.
2. FOOTING SHALL REST AT LEAST 1500mm BELOW NATURAL GRADE LINE UNLESS OTHERWISE INDICATED IN PLANS. NO FOOTING SHALL REST ON FILL
3. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE 75mm CLEAR FOR CONCRETE DEPOSITED THE GROUND AND 50mm FOR CONCRETE DEPOSITED AGAINST A FORMWORK.
4. IN CASES WHERE THE SOIL CONDITION IS SUCH THAT THE MINIMUM ALLOWABLE SOIL PRESSURE OF 96KPa (2000 psf) CAN NOT BE ATTAINED AT A PRACTICAL DEPTHS THE USE OF MICROPILES, BORED PILES, OR DRIVEN PILES MAY BE ADOPTED IN LIEU OF STANDARD ISOLATED FOOTINGS.

NOTES ON REINFORCEMENT

1. UNLESS OTHERWISE NOTED IN PLANS, THE YIELD STRENGTH OF REINFORCING BARS SHALL BE:

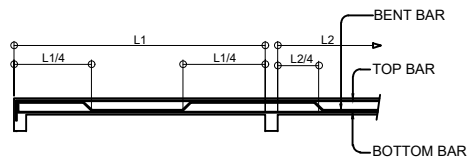
A. FOOTINGS, FOOTING BEAMS AND GIRDERS	$f_y = 414 \text{ MPa}$ (60,000 psi)
B. COLUMNS AND SHEAR WALLS	$f_y = 414 \text{ MPa}$ (60,000 psi)
C. BEAMS AND GIRDER	$f_y = 414 \text{ MPa}$ (60,000 psi)
D. NON-LOAD BEARING WALL PARTITIONS, BEDDED SLABS, FLOOR & ROOF SLABS, PARAPETS, CATCH BASIN, SIDE WALK	$f_y = 275 \text{ MPa}$ (40,000 psi)

2. ALL REINFORCING BARS SIZE 10mm OR LARGER SHALL BE DEFORMED IN ACCORDANCE WITH THE ASTM A-706 BARS SMALLER THAN 10mm MAY BE PLAIN.

3. SPLICES SHALL BE SECURELY WIRED TOGETHER & SHALL LAP OR EXTEND IN ACCORDANCE W/ TABLE B (TABLE OF LAP SPICE & ANCHORAGE LENGTH) UNLESS OTHERWISE SHOWNON DRAWINGS, SPLICES SHALL BE STAGGERED WHENEVER POSSIBLE.

NOTES ON CONCRETE SLABS

1. ALL SLAB REINFORCEMENTS SHALL BE 20mm CLEAR MINIMUM FROM BOTTOM AND FROM THE TOP OF SLAB.
2. UNLESS OTHERWISE SHOWN, REINFORCEMENT IN CONTINUOUS ELEVETED SLAB SHALL BE CUT AS FOLLOWS:



3. IF SLABS ARE REINFORCED BOTHWAYS BARS ALONG THE SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONG SPAN AT THE CENTER AND OVER THE LONGER SPAN FOR REINFORCING BARS NEAR THE SUPPORTS. THE SPACING OF THE BARS AT THE COLUMN STRIPS SHALL NOT BE MORE THAN ONE AND A HALF ($\frac{1}{2}$) SLAB THICKNESS.

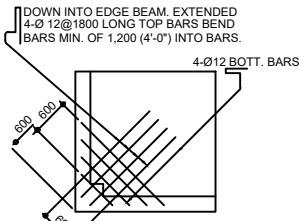
4. TEMPERATURE BARS FOR SLAB SHALL BE GENERALLY PLACED NEAR THE FACE IN TENSION AND SHALL NOT BE LESS THAN 0.0025 X GROSS-SECTIONAL AREA (A_g) OF THE SLAB. (SEE SCHEDULE BELOW)

	MINIMUM TEMPERATURE BARS
100 mm	10 mm @ 250mm EACH WAY
125 mm	10 mm @ 250mm EACH WAY
150 mm	10 mm @ 250mm EACH WAY
175 mm	10 mm @ 250mm EACH WAY
200 mm	10 mm @ 250mm EACH WAY

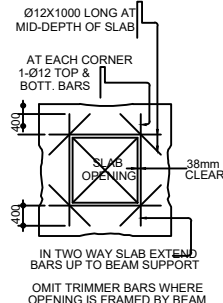
5. UNLESS OTHERWISE NOTED IN THE PLANS ALL BEDDED SLABS SHALL BE REINFORCED WITH 10mm @ 250mm O.C. EACH WAY TO CENTER OF SLAB AND CONSTRUCTION JOINTS FOR SAME SHALL NOT BE LESS THAN 3.65 METER APART.

6. PROVIDE EXTRA REINFORCEMENTS FOR CORNER SLAB (TWO ADJACENT DISCONTINUOUS EDGES) AS SHOWN BELOW.

7. CONCRETE SLAB REINFORCEMENT BE PROPERLY SUPPORTED WITH 10mm STEEL CHAIR OR APPROVED EQUIVALENT SPACED AT 1.0 METER ON CENTER BOTHWAYS.



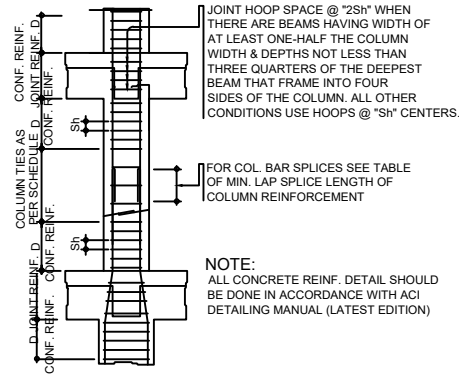
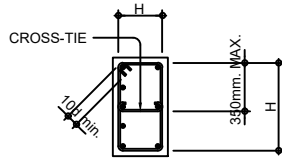
TYPICAL CORNER SLAB DETAIL



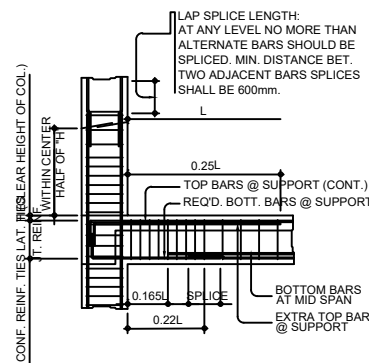
TYPICAL SLAB OPENING DET.

NOTES ON COLUMNS

1. PROVIDE EXTRA SETS OF TIES AT 100 O.C. FOR TIED COLUMN REINFORCEMENT ABOVE AND BELOW BEAM-COLUMN CONNECTIONS FOR A DISTANCE FROM FACE OF CONNECTION EQUAL TO GREATER OF THE OVERALL THICKNESS OF COLUMN, 1/6 THE CLEAR HEIGHT OF COLUMN OR 450mm.
2. COLUMN TIES SHALL BE PROTECTED EVERYWHERE BY A COVERING OF CONCRETE CAST MONOLITHICALLY WITH THE CORE WITH A MINIMUM THICKNESS OF 40mm AND NOT LESS THAN 40 TIMES THE MAXIMUM SIZE OF COARSE AGGREGATE IN MILLIMETERS.
3. WHERE COLUMNS CHANGE IN SIZE, VERTICAL REINFORCEMENT SHALL BE OFFSET AT A SLOPE MONOLITHICALLY WITH THE CORE WITH MINIMUM THICKNESS OF 40mm AND NOT LESS THAN 40 TIMES THE MAXIMUM SIZE COARSE AGGREGATE IN MILLIMETERS
4. UNLESS OTHERWISE INDICATED IN THE PLANS, LAP SPLICES FOR VERTICAL COLUMN REINFORCEMENT SHALL BE MADE WITHIN THE CENTER HALF OF COLUMN HEIGHT, AND THE SPLICE LENGTH SHALL BE LESS THAN 40 BAR DIAMETERS. WELDING OR APPROVED MECHANICAL DEVICES MAY BE USED PROVIDED THAT NOT MORE THAN ALTERNATE BARS ARE WELDED OR MECHANICALLY SPLICED AT ANY LEVEL AND THE VERTICAL DISTANCES BETWEEN THESE WELDS OR SPLICES OF ADJACENT BARS IS NOT LESS THAN 600mm.



TYPICAL COLUMN ELEV. SHOWING DOWELS AND TIES SPACING



TYP. DETAIL OF COL. LAP SPICE & EXT. GIRDER TO COL. CONNECT.

NOTES ON BEAMS AND GIRDERS

1. UNLESS, OTHERWISE NOTED IN PLANS, CAMBER ALL BEAMS AND GIRDER AT LEAST 6mm @ FOR EVERY 4.50m OF SPAN, EXCEPT CANTILEVERS FOR WHICH THE CAMBER SHALL BE AS NOTED IN PLANS OR AS ORDERED BY THE ENGINEER BUT IN NO CASE LESS THAN 20 mm FOR EVERY 3.0 M OF FREE SPAN.
2. TYPICAL BARS BENDING AND CUTTING DETAILS FOR BEAMS SHALL BE AS SHOWN IN FIG. B-1

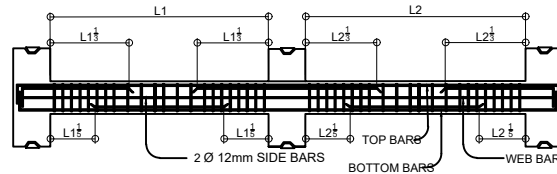


FIGURE B-1



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE VII
CEBU SECOND DISTRICT ENGINEERING OFFICE
POBLACION, DALAGUETE, CEBU

PLANNING & DESIGN SECTION

PROJECT TITLE / LOCATION:

CY 2025 PROJECT
DETAILED ENGINEERING PLAN FOR
CONVERGENCE AND SPECIAL SUPPORT PROGRAM
BASIC INFRASTRUCTURE PROGRAM (BIP)
MULTI-PURPOSE BUILDINGS / FACILITIES TO SUPPORT SOCIAL SERVICES
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING
BARANGAY CATANG, ARGAO, CEBU

SHEET CONTENTS:

GENERAL CONSTRUCTION NOTES

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OIC - ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

BRILLIANCE M. SALAS

OIC-DISTRICT ENGINEER

DATE:

SET NO:

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01/08

SHEET NO:

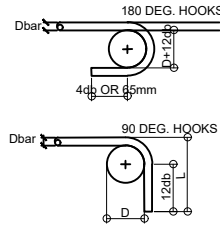
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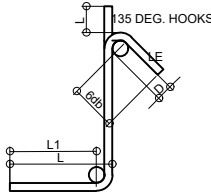
GENERAL CONSTRUCTION NOTES

NOTES ON STIRRUPS

- ALL REINFORCEMENT SHALL BE BENT COLD UNLESS OTHERWISE PERMITTED BY THE STRUCTURAL ENGINEER.
- AS SHOWN IN THE DESIGN DRAWINGS OR PERMITTED BY THE STRUCTURAL ENGINEER.
- TIES & CLOSE STIRRUPS MUST BE AT 135.

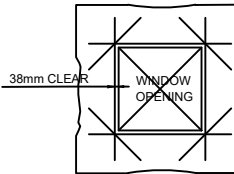


MAIN BAR END HOOKS (ALL GRADES)				
BAR SIZE (DEFORMED)	DIAMETER (mm)	180° HOOK D+2db	180° HOOK L	90° HOOK L
Ø10	60	75	125	150
Ø12	75	100	150	200
Ø16	95	125	175	250
Ø20	115	150	200	300
Ø25	150	200	230	450
Ø28	240	300	350	550
Ø32	300	335	450	600



STIRRUP AND THE TIE HOOKS (ALL GRADES)				
BAR SIZE (DEFORMED)	DIAMETER (mm)	180° HOOK D+2db	180° HOOK L	90° HOOK L
Ø10	40	125	85	100
Ø12	50	165	115	115
Ø16	65	200	140	150
Ø20	115	300	165	300
Ø32	150	335	230	405

NOTE:
PROVIDE THESE ADDITIONAL BARS FOR ALL OPENINGS PLUS BARS (NOT SHOWN) PARALLEL TO SIDE OF OPENING EQUAL TO THE NUMBER OF TERMINATED BARS AT OPENING
SEE ARCHITECTURAL & MECHANICAL PLANS FOR SLAB OPENING LOCATION.



TYP. EXTERIOR WDW. & DOOR OPENING

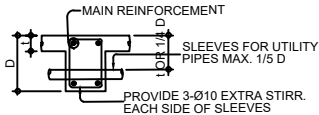
TABLE 'A' TENSION BARS TABLE OF LAP SPLICE & ANCHORAGE LENGTH (mm)				
BAR SIZES (DEFORMED MM)	EMBEDMENT	LAPPED	EMBEDMENT	LAPPED
Ø10	300	300	300	300
Ø12	300	300	300	300
Ø16	300	400	300	400
Ø20	400	550	350	500
Ø25	600	800	550	750
Ø28	750	1000	650	850
Ø32	950	1300	850	1100

NOTES:
1. TOP PLAIN BARS, MULTIPLY VALUE BY 2
2. NOT MORE THAN 33% OF THE BARS SHALL BE SPLICED WITHIN THE REQUIRED LAP LENGTH

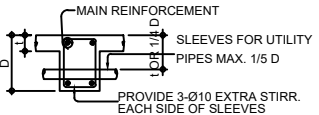
TABLE 'B' COMPRESSION BARS TABLE OF LAP SPLICE & ANCHORAGE LENGTH (mm)				
BAR SIZES (DEFORMED MM)	EMBEDMENT	LAPPED	EMBEDMENT	LAPPED
Ø10	225	300	200	300
Ø12	275	300	250	300
Ø16	350	400	325	400
Ø20	450	500	475	500
Ø25	550	625	550	625
Ø28	625	675	625	675
Ø32	700	775	700	775

NOTES:
1. TOP PLAIN BARS, MULTIPLY VALUE BY 2
2. NOT MORE THAN 33% OF THE BARS SHALL BE SPLICED WITHIN THE REQUIRED LAP LENGTH
3. VALUES GIVEN ABOVE CAN ALSO BE USED FOR COLUMNS

- IF THE BEAM REINFORCING BARS END IN A WALL, THE CLEAR DISTANCE FROM THE BAR TO THE FARTHER FACE OF THE WALL IS NOT LESS THAN 25mm. EMBEDMENT LENGTH SHALL BE SHOWN IN A TABLE 'A' FOR TENSION BARS AND TABLE 'B' FOR COMPRESSION BARS UNLESS UNLESS SPECIFIED IN PLAN. TOP BARS AND SHALL NOT BE SPLICED WITHIN THE COLUMN OR TWO STIRRUPS SHALL BE PROVIDED AT ALL SPLICES.
- IF THERE ARE TWO OR MORE LAYERS OF REINFORCING BARS, USED 25mm BAR SEPARATORS SPACED AT 1.0M ON ON CENTER ON NO CASE SHALL THERE BE THAN TWO (2) SEPARATORS BETWEEN LAYERS OF BARS
- MINIMUM CONCRETE PROTECTION FOR REINFORCING BARS OR STEEL SHAPES SHALL BE AS SHOWN IN FIGURE B-2 UNLESS ELSEWHERE.



TYP. DET. FOR SLEEVES
THRU CONCRETE BEAM
FIG. B-2



TYP. DET. FOR SLEEVES
THRU CONCRETE BEAM
FIG. B-3

- WHEN A BEAM CROSSES A GIRDER, REST BEAM ON TOP OF GIRDER BARS, BEAM REINFORCING BARS SHALL BE SYMMETRICAL ABOUT THE CENTER LINE WHENEVER POSSIBLE.
- GENERALLY, NO SPLICES SHALL BE PERMITTED AT POINTS WHERE CRITICAL BENDING STRESSES OCCUR, SPLICES WHERE SO PERMITTED SHALL BE INDICATED IN TABLE 'A' AND 'B'. WELDED SPLICES SHALL DEVELOP IN TENSION AT LEAST 125% OF THE SPLICED YIELD STRENGTH OF THE BAR NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION IS ALLOWED TO BE SPLICED THEREIN.

NOTES ON CONCRETE HOLLOW BLOCKS WALLS

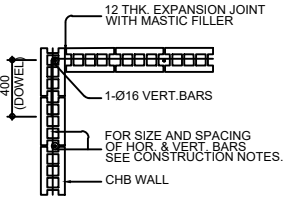
- UNLESS OTHERWISE SHOWN IN PLANS ALL CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCKS SHALL BE REINFORCED AS SHOWN IN THE SCHEDULE OF CONCRETE HOLLOW BLOCKS AND CERAMIC BLOCK REINFORCEMENT.
- PROVIDE 150mm x 300mm STIFFENER COLUMN REINFORCED WITH 4-12mm WITH 10mm Ø TIES AT 150mm ON CENTER WHERE CONCRETE HOLLOW BLOCK TERMINATES AND AT EVERY 3.0M LENGTH OF CONCRETE HOLLOW BLOCK WALLS UNLESS NOTED IN STRUCTURAL PLANS.

NOTES ON CONCRETE HOLLOW BLOCKS WALLS REINFORCEMENTS		
BLOCK THICKNESS	REINFORCEMENT	
	HORIZONTAL	LAPPED
75 mm	10mm Ø EVERY 3RD LEVEL	10mm Ø @ 600mm O.C.
125 mm	10mm Ø EVERY 3RD LEVEL	10mm Ø @ 600mm O.C.
150mm	10mm Ø EVERY 3RD LEVEL	10mm Ø @ 600mm O.C.
200 mm	10mm Ø EVERY 3RD LEVEL	10mm Ø @ 600mm O.C.

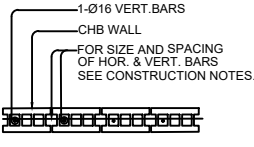
NOTES:
A. MINIMUM LAPS AT SPLICE= 0.25 M
B. PROVIDE RIGHT ANGLED REINFORCEMENT AT CORNERS 0.92 m LONG
C. WHERE CHB OR CER. BLK. WALL DOWELS WITH THE SAME SIZE AS VER. OR HOR. REINFORCEMENT SHALL BE PROVIDED

REINFORCING CONCRETE LINTEL BEAMS IN CONCRETE BLOCK WALLS

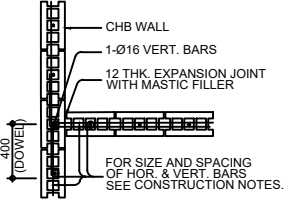
LINTELS IN BLOCK WALLS						
CLEAR SPAN (L)	TOTAL LENGTH (L+0.40M)	MIN. f'c (MPa)	HEIGHT OF LINTEL (mm)	REINFORCEMENT		
				BOTTOM	TOP	STIRRUPS
1.20 M	1.60 M	14.0	200	1- Ø10	1- Ø10	Ø6 mm @ 200mm
1.50 M	1.90 M		200	1- Ø10	1- Ø10	Ø6 mm @ 200mm
1.80 M	2.20 M		200	1- Ø12	1- Ø10	Ø6 mm @ 200mm
2.10 M	2.50 M	17.0	250	1- Ø12	1- Ø10	Ø6 mm @ 200mm
2.40 M	2.90 M		250	1- Ø12	1- Ø10	Ø6 mm @ 200mm
2.70 M	3.10 M		250	1- Ø16	1- Ø12	Ø10 mm @ 200mm
3.00 M	3.40 M	20.0	300	1- Ø16	1- Ø12	Ø10 mm @ 200mm
3.30 M	3.70 M		300	1- Ø16	1- Ø12	Ø10 mm @ 200mm
3.60 M	4.00 M		300	1- Ø20	1- Ø12	Ø10 mm @ 200mm



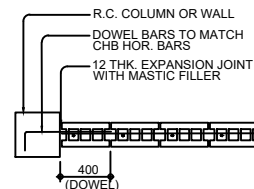
CORNER WALL



OPENING OR END WALL

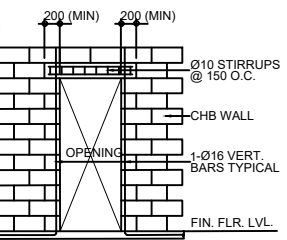


INTERSECTION WALL



INTERSECTING R.C. COLUMN OR WALL

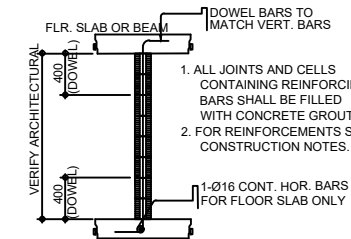
TYPICAL CONNECTION DETAIL OF MASONRY WALL



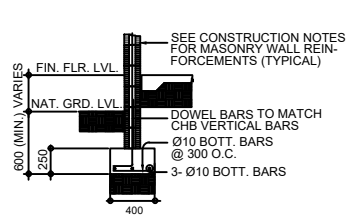
ELEVATION

SECTION

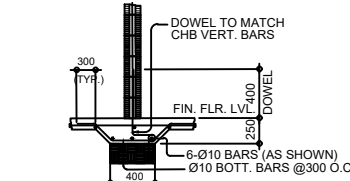
TYP. DET. OF LINTEL BEAM AT CHB WALL OPENING



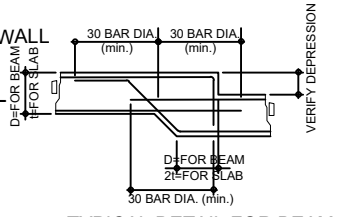
TYP. SECTION OF MASONRY
PARTITION REINFORCEMENTS



TYPICAL CONNECTION DETAIL
OF R.C. WALL AT CORNERS



TYPICAL CHB FOOTING DETAILS
(WHERE APPLICABLE)



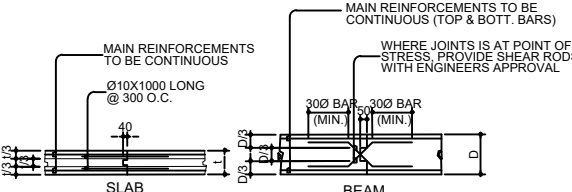
TYPICAL DETAIL FOR BEAM
OR SLAB CHANGE SOFFIT

NOTES ON CONCRETE WALLS

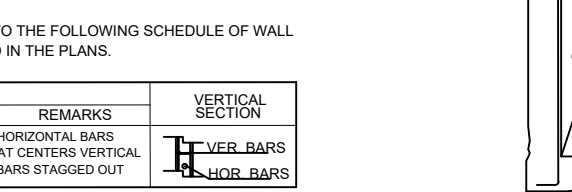
- ALL WALLS SHALL BE REINFORCED ACCORDING TO THE FOLLOWING SCHEDULE OF WALL REINFORCEMENT UNLESS OTHERWISE INDICATED IN THE PLANS.

WALL THICKNESS	REINFORCEMENT		REMARKS	VERTICAL SECTION
	HORIZONTAL	VERTICAL		
100mm	Ø10mm @250mm O-C	Ø10mm @300mm O.C	HORIZONTAL BARS AT CENTERS VERTICAL BARS STAGGED OUT	
125mm	Ø10mm @200mm O.C	Ø10mm @250mm O.C		
150mm	Ø12mm @250mm O.C	Ø12mm @300mm O.C		

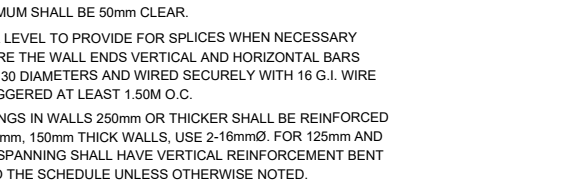
- REINFORCING BARS SHALL HAVE 25mm CLEAR CONCRETE COVER FROM FACE OF WALL EXCEPT FOR WALLS IN CONTACT WITH THE GROUND WHERE A MINIMUM OF 60mm SHALL BE PROVIDED AND FOR EXPOSED FACES OF FORMED WALLS WHERE THE MINIMUM SHALL BE 50mm CLEAR.
- CARRY VERTICAL BARS AT LEAST 60mm ABOVE FLOOR LEVEL TO PROVIDE FOR SPLICES WHEN NECESSARY STOP AT 50mm BELOW TOP SLAB OR SOLID BAND WHERE THE WALL ENDS VERTICAL AND HORIZONTAL BARS SHALL BE SPLICED BY LAPPING A DISTANCE EQUAL TO 30 DIAMETERS AND WIRED SECURELY WITH 16 G.I. WIRE PROVIDED THAT SPLICES IN ADJACENT BARS ARE STAGGERED AT LEAST 1.50M O.C.
- UNLESS OTHERWISE NOTED IN THE PLANS, ALL OPENINGS IN WALLS 250mm OR THICKER SHALL BE REINFORCED AROUND WITH 2-20mmØ BARS. FOR 225mm, 200mm, 175mm, 150mm THICK WALLS, USE 2-16mmØ. FOR 125mm AND 100mm THICK WALLS, USE 2-12mmØ BARS. ALL WALLS SPANNING SHALL HAVE VERTICAL REINFORCEMENT BENT AT A U-FORM LIKE STIRRUPS AND SPACED ACCORDING TO THE SCHEDULE UNLESS OTHERWISE NOTED.



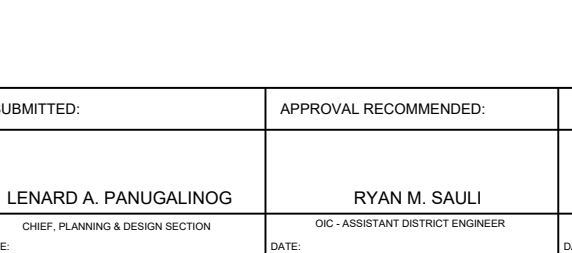
TYPICAL SLAB & BEAM
CONSTRUCTION JOINT DET.



TYPICAL SLAB & BEAM
CONSTRUCTION JOINT DET.



TYPICAL SLAB & BEAM
CONSTRUCTION JOINT DET.



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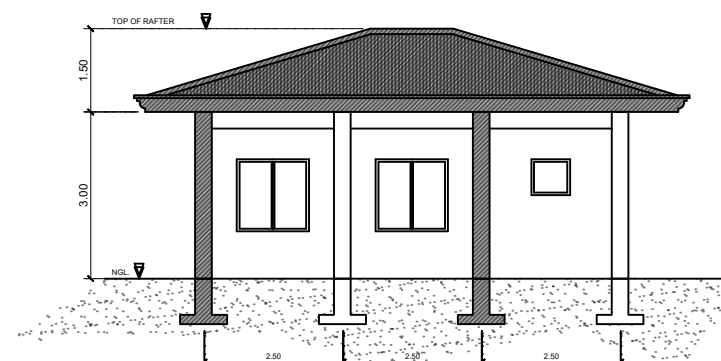
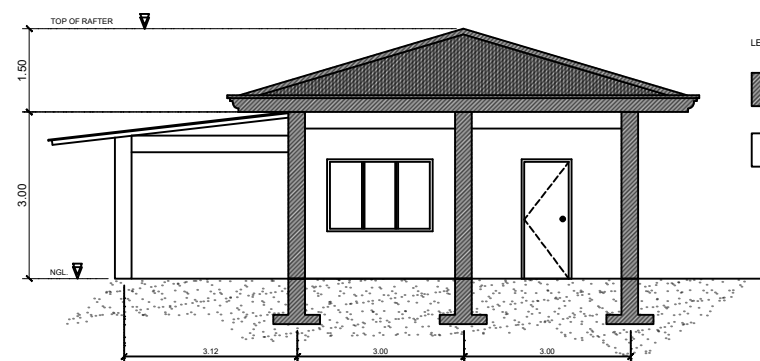
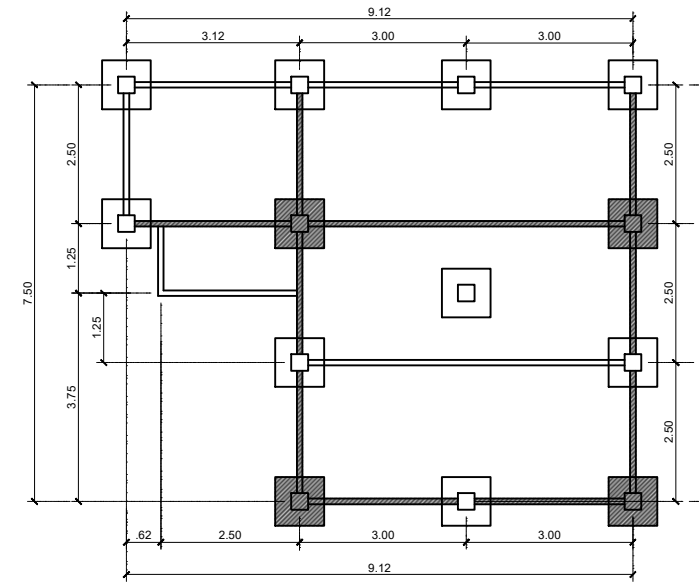
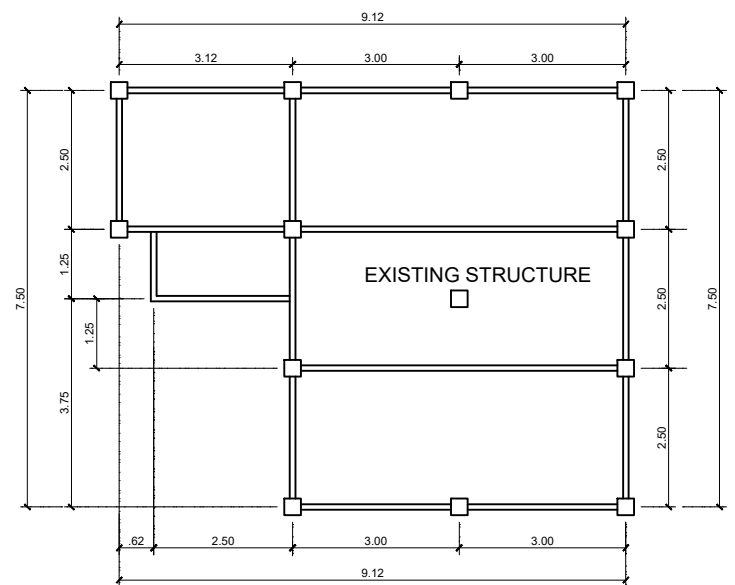
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CONSTRUCTION JOINT DET.

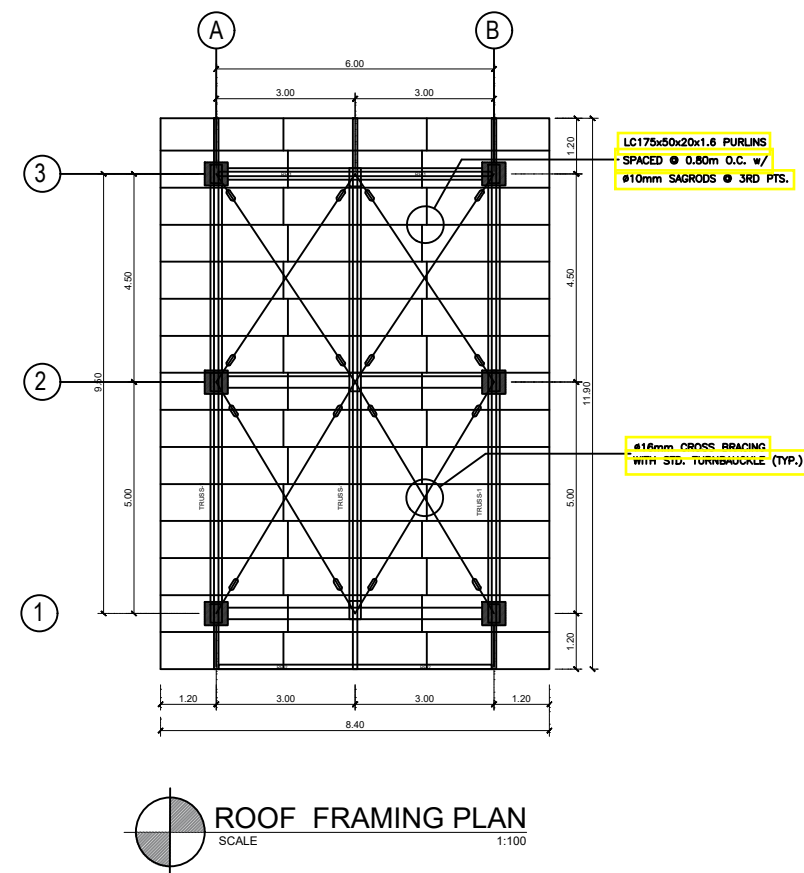
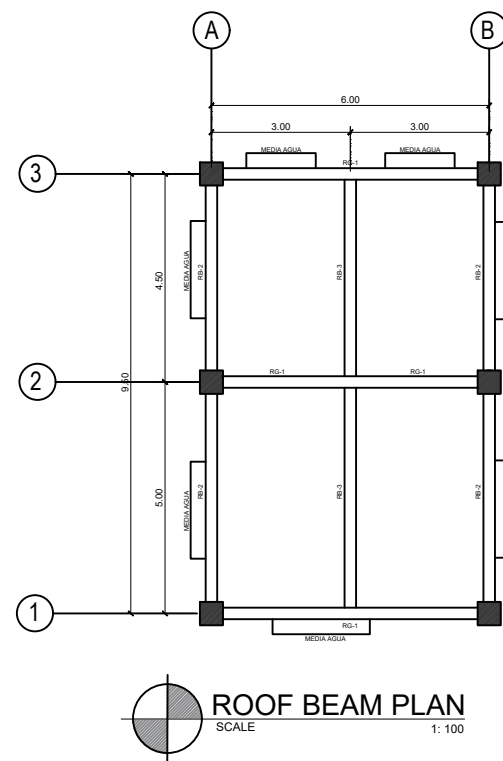
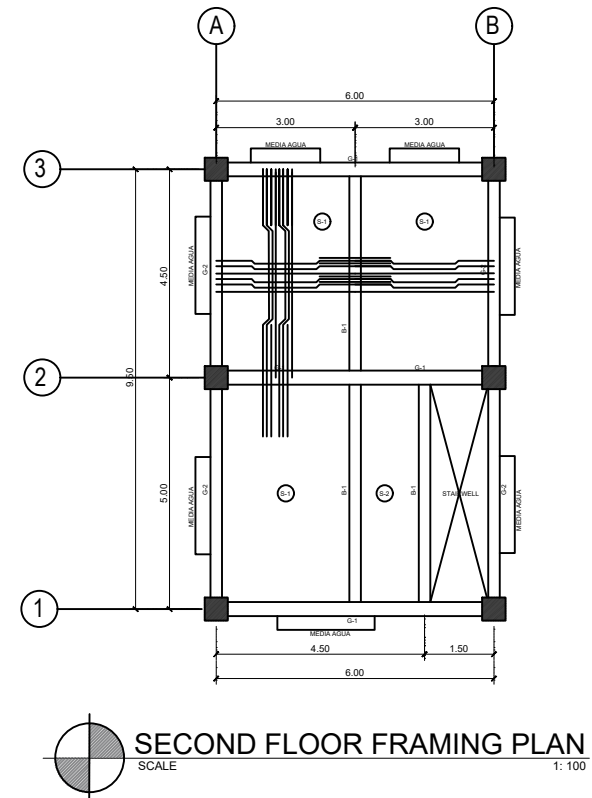
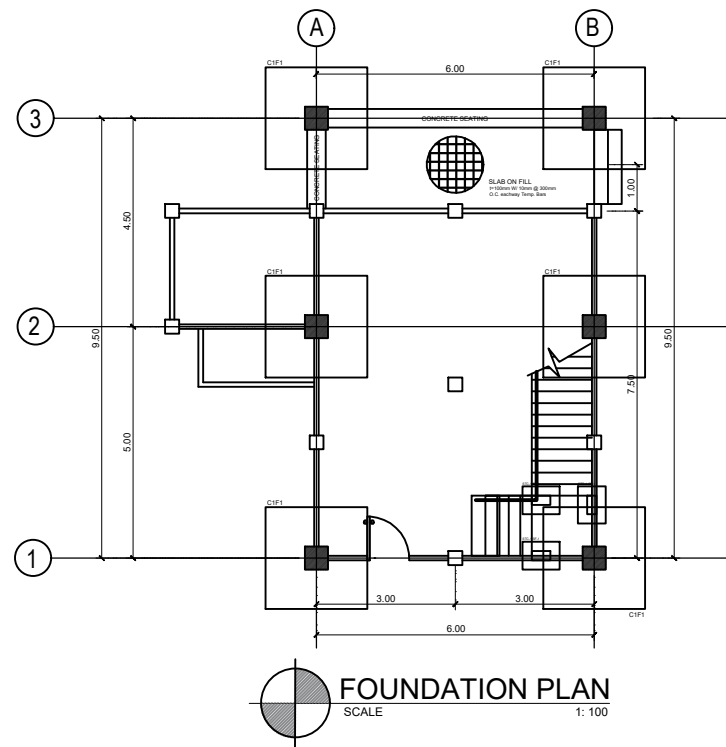
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CONSTRUCTION JOINT DET.

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TYPICAL SLAB & BEAM
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DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE VII
CEBU SECOND DISTRICT ENGINEERING OFFICE
POBLACION, DALAGUETE, CEBU
PLANNING & DESIGN SECTION

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BASIC INFRASTRUCTURE PROGRAM (BIP)
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CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING
BARANGAY CATANG, ARGAO, CEBU

SHEET CONTENTS:

FOUNDATION PLAN
SECOND FLOOR FRAMING PLAN
ROOF BEAM PLAN
ROOF FRAMING PLAN

DRAFTED:

LEONIL N. BAJENTING
ENGINEERING ASSISTANT

PREPARED:

CHARIE Z. BAHENA
ENGINEER II

CHECKED:

JESS VLADIMIR L. HINOGUIN
ENGINEER II

DATE:

SUBMITTED:

LENARD A. PANUGALINOG
CHIEF, PLANNING & DESIGN SECTION

DATE:

APPROVAL RECOMMENDED:

RYAN M. SAULI
OIC - ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

BRILLIANCE M. SALAS
OIC-DISTRICT ENGINEER

DATE:

SET NO:

S
01/05

SHEET NO:

08
12

SCHEDULE OF BEAMS

MARK	SIZES (MM)		REINFORCEMENT BARS				BAR ARRANGEMENT			STIRRUPS SIZE AND SPACING	REMARKS
	BREATH	DEPTH	SUPPORT		MID-SPAN		EXT. SUPP.	MID SPAN	INT. SUPP.		
	B	D	TOP	BOTTOM	TOP	BOTTOM					
G-1	300	500	7-20mmØ	4-20mmØ	5-20mmØ	4-20mmØ				10mm Ø, 1 @ 50, 10 @ 100, 10@150 REST @200mm O.C.	PROVIDE 2 - 16 mm Ø WEB BARS
G-2	250	400	5-20mmØ	3-20mmØ	3-20mmØ	3-20mmØ				10mm Ø, 1 @ 50, 8 @ 100, REST @200mm O.C.	
B-1	250	400	2-20mmØ	2-20mmØ	2-20mmØ	2-20mmØ				10mm Ø, 1 @ 50, 8 @ 100, REST @200mm O.C.	
RG-1	250	400	5-20mmØ	3-20mmØ	3-20mmØ	3-20mmØ				10mm Ø, 1 @ 50, 10 @ 100, 8@150 REST @200mm O.C.	
RB-1	250	400	5-20mmØ	2-20mmØ	3-20mmØ	2-20mmØ				10mm Ø, 1 @ 50, 8 @ 100, REST @200mm O.C.	
RB-2	250	400	2-20mmØ	2-20mmØ	2-20mmØ	2-20mmØ				10mm Ø, 1 @ 50, 8 @ 100, REST @200mm O.C.	

SCHEDULE OF FOOTINGS

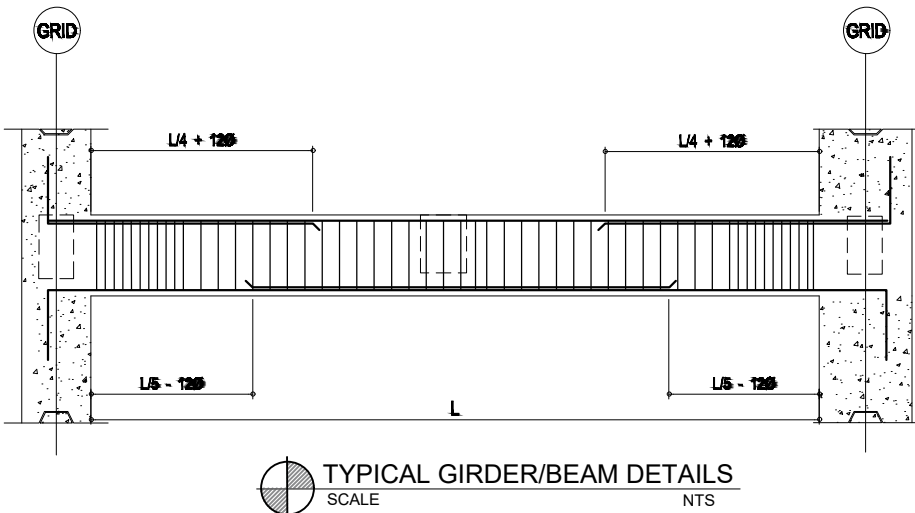
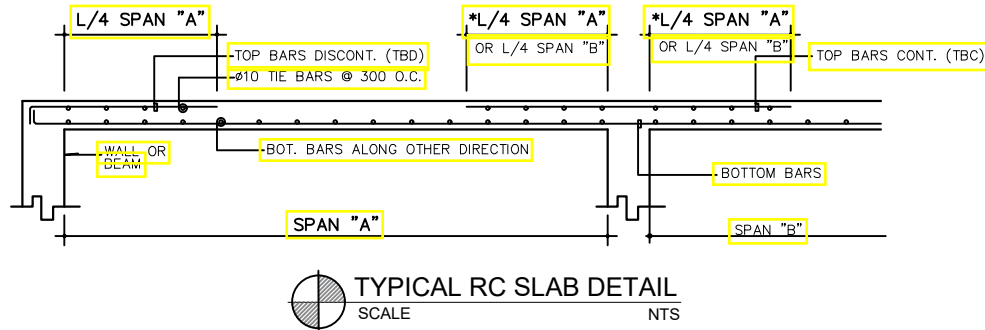
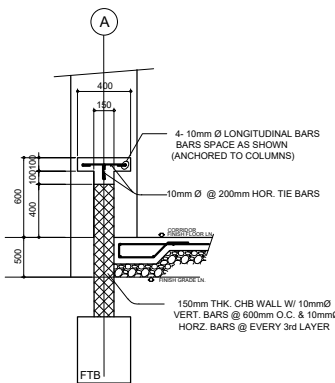
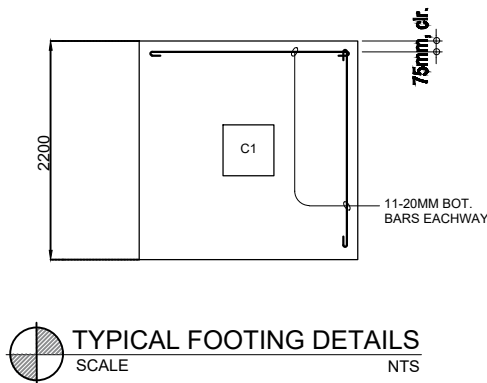
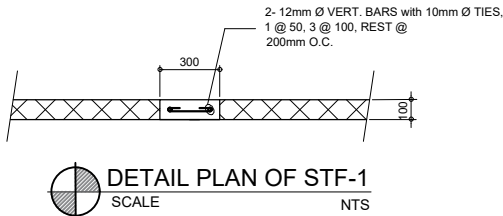
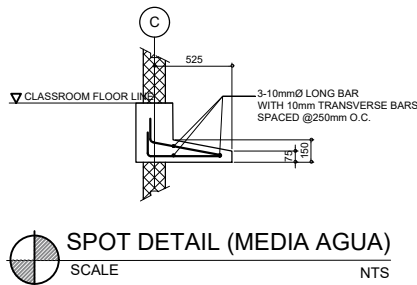
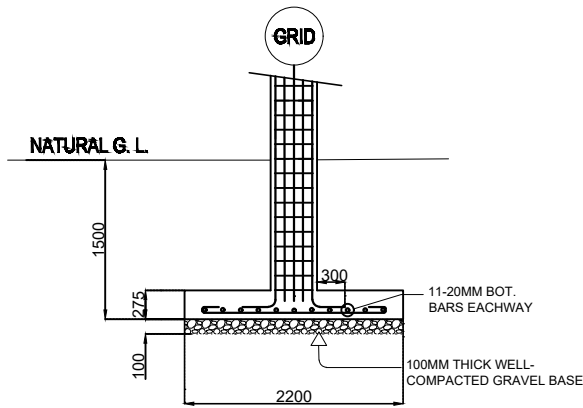
MARK	DIMENSIONS (mm)			DEPTH FROM NGL	REINFORCING BARS	
	T	W	L		BAR W	BAR L
F-1	275	2200	2200	1500	11-20mmØ	11-20mmØ

SCHEDULE OF SLABS

SLAB MARK	THICKNESS (mm)	SHORT SPAN (BAR SPACING IN MM)	LONG SPAN (BAR SPACING IN MM)	REMARKS
S-1	100mm	12mmØ @ 250mm O.C. BENT-UP 2 OUT OF 3 @ L/4 FROM FACE OF SUPPORT	12mmØ @ 250mm O.C. BENT-UP 2 OUT OF 3 @ L/4 FROM FACE OF SUPPORT	TWO-WAY SLAB
S-2	100mm	10mmØ TEMPERATURE BARS @ 250mm O.C.	12mmØ @ 250mm O.C. BENT-UP 2 OUT OF 3 @ L/4 FROM FACE OF SUPPORT	ONE-WAY SLAB

SCHEDULE OF COLUMNS

SLAB MARK	FOOTING TO GROUND FLR LEVEL	GROUND FLR TO SECOND FLR	SECOND FLR TO ROOF
C-1	 24-20mmØ VERTICAL BARS W/ 10mmØ TIES 1@50, 7@100, 5@150, REST @250mm O.C. (5 TIES/SET)	 24-20mmØ VERTICAL BARS W/ 10mmØ TIES 1@50, 7@100, 5@150, REST @250mm O.C. (5 TIES/SET)	 16-20mmØ VERTICAL BARS W/ 10mmØ TIES 1@50, 7@100, 5@150, REST @250mm O.C. (3 TIES/SET)



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PROJECT TITLE / LOCATION:
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BARANGAY CATANG, ARGAO, CEBU

SHEET CONTENTS:
SCHEDULE OF FOOTINGS
SCHEDULE OF BEAMS
SCHEDULE OF COLUMNS
SCHEDULE OF SLABS
TYPICAL RC SLAB DETAIL
TYPICAL GIRDER/BEAM DETAILS
TYPICAL FOOTING DETAILS
SPOT DETAIL (MEDIA AGUA)
DETAIL OF CONCRETE SEATING

DRAFTED:
LEONIL N. BAJENTING
ENGINEERING ASSISTANT
PREPARED:
CHARIE Z. BAHENA
ENGINEER II

CHECKED:
JESS VLADIMIR L. HINOGUIN
ENGINEER II
DATE:

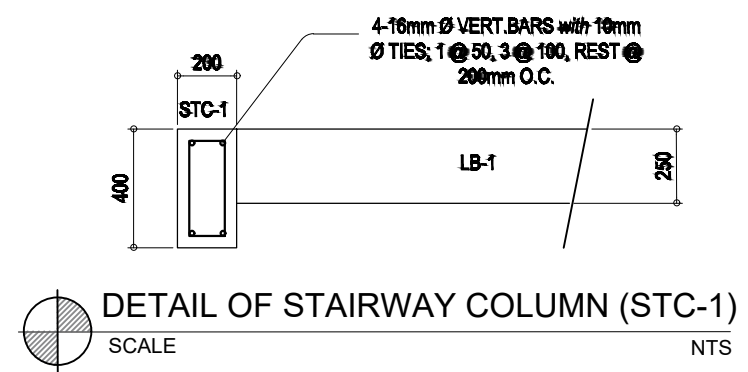
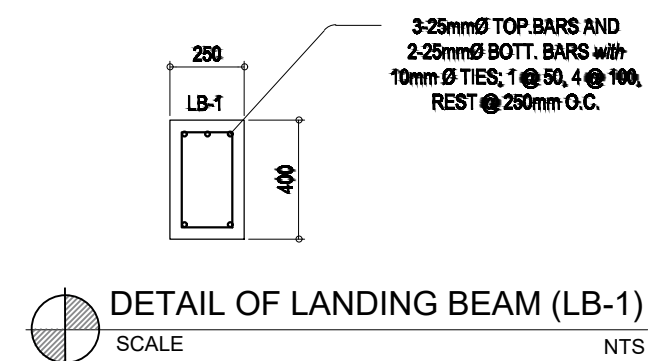
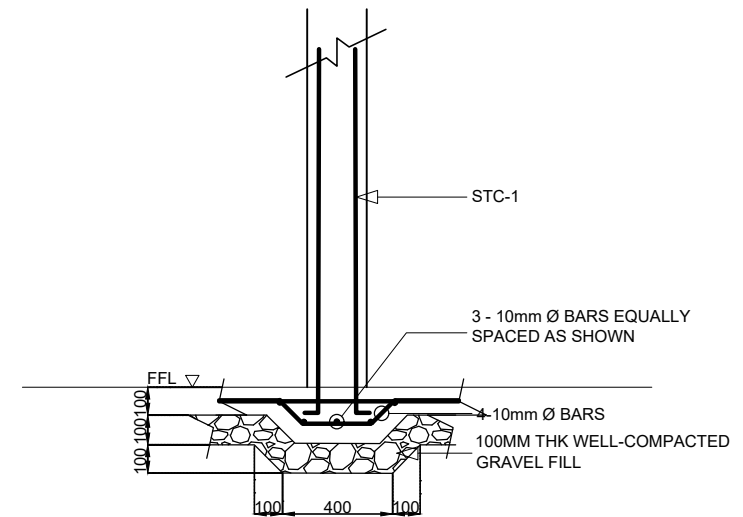
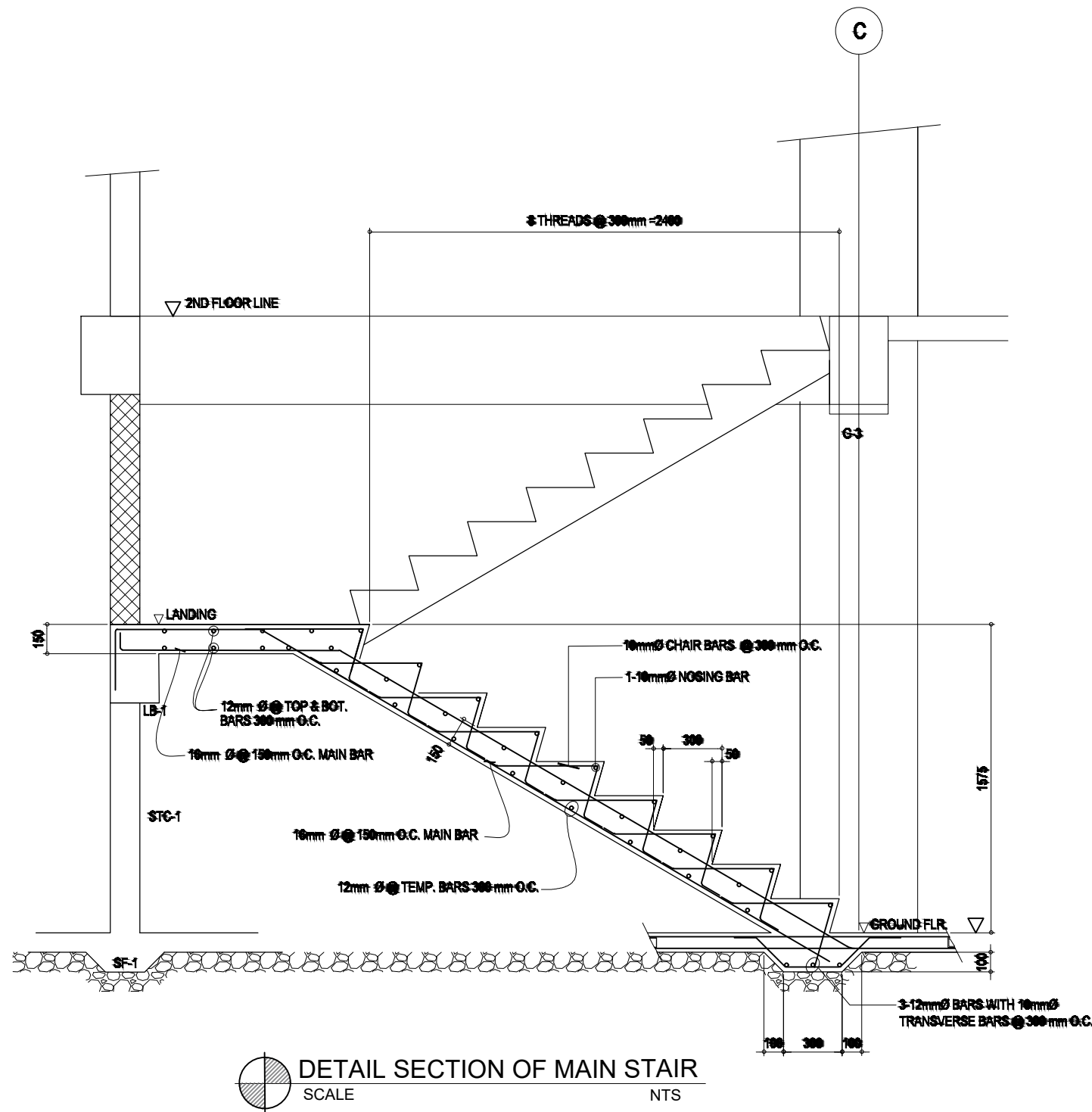
SUBMITTED:
LENARD A. PANUGALINOG
CHIEF, PLANNING & DESIGN SECTION
DATE:


APPROVAL RECOMMENDED:
RYAN M. SAULI
OIC - ASSISTANT DISTRICT ENGINEER
DATE:

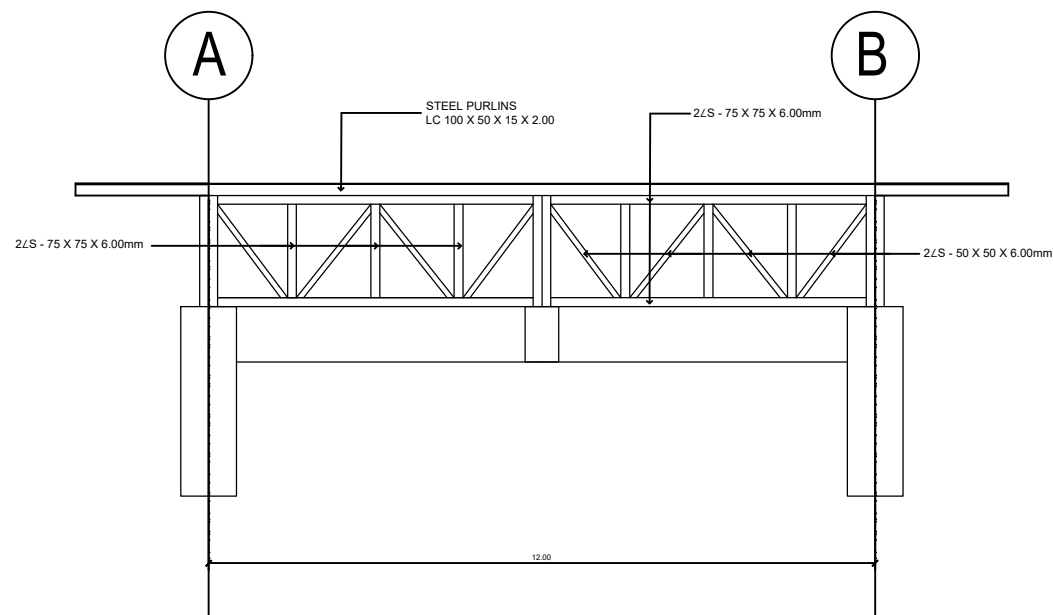
APPROVED:
BRILLIANCE M. SALAS
OIC-DISTRICT ENGINEER
DATE:

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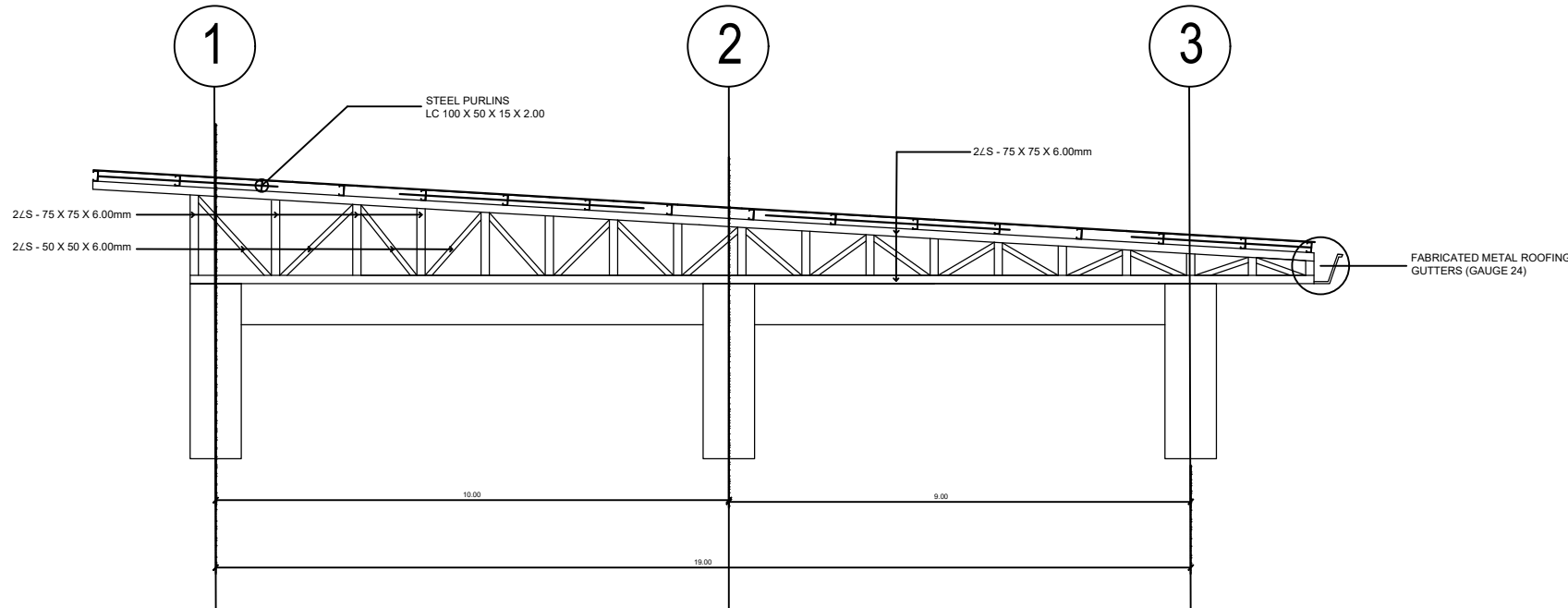
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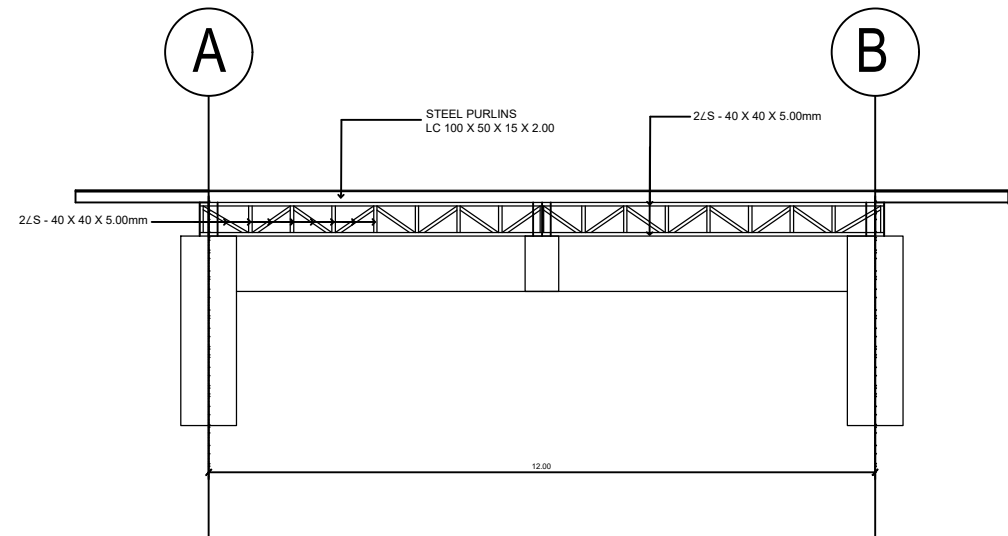
 <p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE VII CEBU SECOND DISTRICT ENGINEERING OFFICE POBLACION, DALAGUETE, CEBU PLANNING & DESIGN SECTION</p>	<p>PROJECT TITLE / LOCATION:</p> <p>CY 2025 PROJECT DETAILED ENGINEERING PLAN FOR CONVERGENCE AND SPECIAL SUPPORT PROGRAM BASIC INFRASTRUCTURE PROGRAM (BIP) MULTI-PURPOSE BUILDINGS / FACILITIES TO SUPPORT SOCIAL SERVICES CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING BARANGAY CATANG, ARGAO, CEBU</p>	<p>SHEET CONTENTS:</p> <p>DETAIL SECTION OF MAIN STAIR STAIRWAY FOOTING SF-1 DETAIL DETAIL OF LANDING BEAM (LB-1) DETAIL OF STAIRWAY COLUMN (STC-1)</p>	<p>DRAFTED:</p> <p>LEONIL N. BAJENTING ENGINEERING ASSISTANT</p> <p>PREPARED:</p> <p>CHARIE Z. BAHENA ENGINEER II</p>	CHECKED:	SUBMITTED:	APPROVAL RECOMMENDED:	APPROVED:	SET NO:	SHEET NO:
				JESS VLADIMIR L. HINOGUIN ENGINEER II	LENARD A. PANUGALINOG CHIEF, PLANNING & DESIGN SECTION	RYAN M. SAULI OIC - ASSISTANT DISTRICT ENGINEER	BRILLIANCE M. SALAS OIC-DISTRICT ENGINEER	<p>S 01/05</p>	<p>08 12</p>
				DATE:	DATE:	DATE:	DATE:		



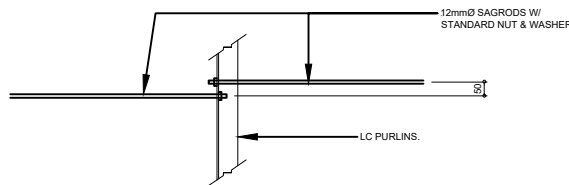
DETAIL OF ELEVATION OF RF-2
SCALE 1:100



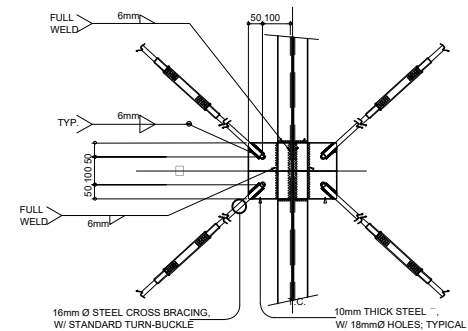
DETAIL OF ELEVATION OF TRUSS-1
SCALE 1:100



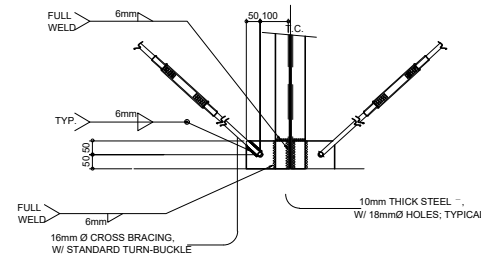
DETAIL OF ELEVATION OF RF-1
SCALE 1:100



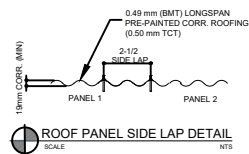
DETAIL CONNECTION OF PURLIN TO SAG ROD
SCALE NTS



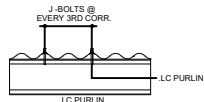
DETAIL CONNECTION OF CROSS-BRACING
SCALE NTS



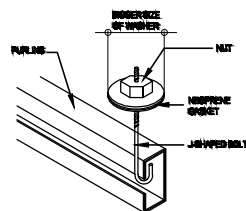
ALONG GRID LINE A & B



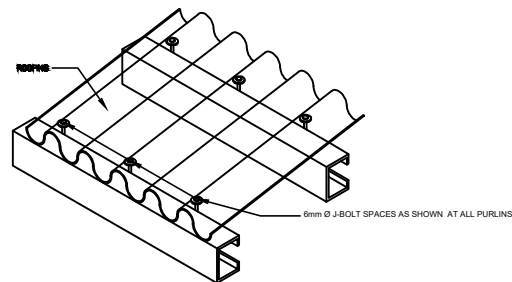
ROOF PANEL SIDE LAP DETAIL
SCALE NTS



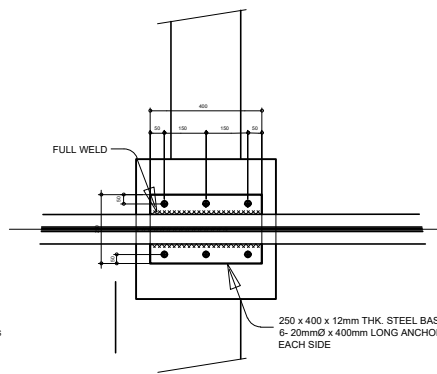
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SCALE NTS



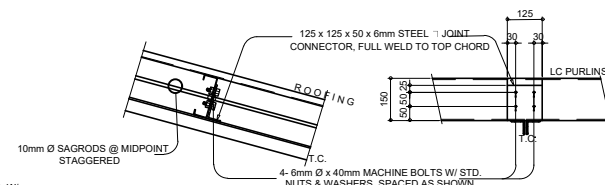
ROOFING FIXER
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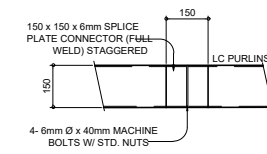
ISOMETRIC VIEW OF CONNECTION OF ROOFING TO PURLINS
SCALE NTS



DETAIL OF TRUSS ANCHORAGE
SCALE NTS



DETAIL CONNECTION OF PURLIN TO TOP CHORD
SCALE NTS



DETAIL OF PURLIN SPLICE
SCALE NTS



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SHEET CONTENTS:

DETAIL ELEVATION OF TRUSS-1
DETAIL ELEVATION OF RF-1
DETAIL ELEVATION OF RF-2

DRAFTED:

LEONIL N. BAJENTING
ENGINEERING ASSISTANT

PREPARED:

CHARIE Z. BAHENA
ENGINEER II

CHECKED:

JESS VLADIMIR L. HINOGUIN
ENGINEER II

DATE:

SUBMITTED:

LENARD A. PANUGALINOG
CHIEF, PLANNING & DESIGN SECTION

DATE:

APPROVAL RECOMMENDED:

RYAN M. SAULI
OIC - ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED:

BRILLIANCE M. SALAS
OIC-DISTRICT ENGINEER

DATE:

SET NO:

S
01/05

SHEET NO:

08
12

STANDARD DPWH PROJECT BILLBOARD
SCALE: _____ NTS

2400

COMMISSION ON AUDIT

(PROVINCE AND CITY)

Project:

Location:

Implementing Agency:

Development Partner:

Contractor / Supplier:

Brief Description of Project:

Cost:

Fund Source:

Project Details:

Project Date			Project Status				Remarks
Duration	Started	Target Date of Completion	Percentage of Completion	As of (Date)	Cost Incurred to Date	Date Completed	

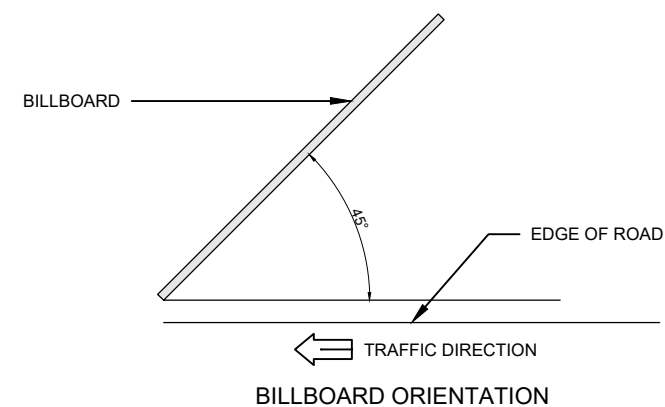
For Particulars or Complaints about this project, please contact the Regional Office or Cluster which has audit jurisdiction on this project

COA Regional Office No. / Cluster: _____

Address: _____

Contact No.: _____ or Text COA Citizen's Desk at 0915-539-1957

The technical drawings illustrate the construction of the display area frame. The **TYPICAL FRAME ELEVATION** shows a side view of the frame with a base of 1000 units. It features a vertical support labeled **50 X 75 VERTICAL COCO LUMBER** and a horizontal support labeled **50 X 50 HORIZONTAL COCO LUMBER**. A **50 X 50 WOODEN STAKE** is shown securing the frame to the ground. The **DISPLAY AREA** is indicated at the top. The **FRONT ELEVATION** shows a front view of the frame with a total width of 2440 units and a total height of 1220 units. It is divided into two main sections: a top section of 1000 units height and a bottom section of 500 units height. The top section is labeled **DISPLAY AREA (1200 X 2400 X 12 MARINE PLYWOOD)**. The bottom section is divided into three vertical panels, each 500 units wide. The ground is represented by a stippled pattern.



BILLBOARD ORIENTATION

TRAFFIC DIRECTION

E BACKGGROUND
K TEXT

DISPLAY AREA

50 X 50 HORIZONTAL
COCO LUMBER

50 X 75 VERTICAL
COCO LUMBER

50 X 50
WOODEN STAKE

1000

2400

2400

1000

500

TYPICAL FRAME ELEVATION

FRONT ELEVATION